

Used oil collected from plant machines that is not contaminated with foreign substances is to be recycled internally.

Any containers of to accumulate used oil must be labeled "USED OIL".

This waste oil can be dumped into the recycling tank or put into the Maintenance waste oil pickup cart, *both are located in the old boiler room in the southeast corner of the building.*

Contaminated Oil

Oil that is contaminated with foreign substances such as plastic pellets or dirt must be disposed of in the waste oil container *next to the aisle east of the Cold Form Department.* This container is labeled as "USED OIL".

Industrial Absorbents

- This includes such items as oil socks, booms, barrel pads and mats.

Spent absorbents are first placed in a tray and later stored in a 55-gallon drum with a sealable cover *in the old boiler room, located in the southeast corner of the building.* The drum is labeled on the lid "Used Absorbent Materials Only".

Water Contaminated with Oil

This includes any water mixed with machine, industrial or cutting oils.

- The contaminated water is stored in a sealed 450-gallon steel tank located in the boiler room labeled "Water and Hydraulic Oil". Only designated personnel will transfer contaminated water to this tank.

When the tank is full, maintenance management will have the tank emptied.

Waste from Spray Booth Wash Tank

- Spray booth wash tank liquid is considered hazardous material and *maintenance will make arrangements with certified waste haulers to drain or clean the wash tank.*

Aerosol Cans

- Empty aerosol cans should be disposed of in the Steel Recycle drums located in the Tool Room, Cold Form and Plastics. When full, the drums should be brought to the blue "Crystal Clean" drum by maintenance, where the cans can be emptied and punctured. The drums must be labeled with the start date of accumulation.
- After the cans have been emptied and punctured, they can be brought to the *dumpster inside the north end of the warehouse.*

Spent Sulfuric Acid

Spent Sulfuric Acid is kept in a storage location in proximity of the Quality Control Lab where the waste is generated in 55 gallon plastic container with a lid. The container must be labeled as "SPENT SULFURIC ACID" along with the *starting date of accumulation.*

If you are not sure of where to dispose of waste or recyclable materials, ask your Supervisor.

4/15/2014

Waste Stream

Waste name	Generated from	Disposal/Recycl. Method	Disposal/Recyc Company	Transporter	Disposal (location if known)	Qty annual	Storage Container
Hydraulic Oil Spills	Injection Molding Machines (pits) & Cold Form presses	Waste Oil Reclaim and Recycling	Oil reclaim in house Waste Water to Crystal Clean 73254-1-54	NA	NA	15,000 gal	Tank 55 gallon drum
Non-Contact Cooling Water Spills	Injection Molding	Settling - Waste Oil Reclaim and Recycling	In house	NA	NA	4,555 gal	Metal Tank
Oil filters	Oil reclaim & IMM	Drain the free oil - Waste Oil Reclaim and Recycling - Landfill the filter	Viola - Waste Management Crystal Clean 75234-10-3	Yes	Yes	36	Dumpster 55 gallon drum
Gear Oil	Gear Reducers	Reclaim	Advanced Waste Serv.			5 gal	Metal Tank
Oil rags	Cleaning/Spill	Wash & reuse	G&K Uniform	Yes	Yes		Metal Container w plastic bag
Hy Dri oil absorbent (no free liquid)	Oil spill, leak	Recycle	Crystal Clean 73254-2, 73254-7, 73254-14	Yes	Yes	55 gal	55 gallon drumDrum
Lead scrap	Extruding, Cold Form	Lead Reclaim	In house	NA	NA	430,600 lbs	Plastic bins
Lead Polypropylene scrap (mixed)	Injection Molding lead scrap	Reclaim	Gopher Resources	Yes	Minn	included with dross total	Cardboard gaylord
Lead dross	Lead impurities	Recycle	Gopher Resources	Yes	Minn	176,720 lbs	Steel drums
Air Filter (wood resin)	Spray booth	Disposal	Viola - Waste Management	Yes	Yes	165 gal	Dumpster?
Aqueous Parts Washer	Spray Booth	Waste Water Treat	Crystal Clean 73254-6	Yes	Yes	3,860 gal	80 gallon tank
Steel, other scrap metal (except lead)	Cold Form, Metal works, Tool room	Recycling	Miller Compressing	Yes	Yes		Metal container
Spray cans	Paint, Lubricant	Disposal	Miller Compressing	Yes	Yes		Dumpster
Polypropylene	Floor sweepings	Recycling	Tulip Corp, Niagara	We ship	NY		Cardboard gaylord
Polypropylene (screened oversize)	Floor sweepings	Disposal	Tulip Corp, Niagara	We ship	NY		Dumpster
Scrap polypropylene	Injection Molding	Recycling	In house	NA	NA		Cardboard gaylord
Polypropylene contaminated with Oil	Injection Molding	Drain the free oil - Waste Oil Reclaim and Recycling	Tulip Corp, Niagara	We ship	NY		Dumpster
Polypropylene after oil recovery	Injection Molding	Reclaim	in house	NA	NA	included in oil reclaim	Metal Tank
Cooling Towers Air Filters	Cooling Tower	Wash & Reuse	in house	NA	NA		

Waste name	Generated from	Disposal/Recycl. Method	Disposal/Recyc Company	Transporter	Disposal (location if known)	Qty annual	Storage Container
TSP for washing Cooling Tower Air Filters	Cleaning	Neutralize & sewer	MMSD*	NA	NA	10 lbs	Drum
Muriatic Acid for Washing Cooling Tower Air Filters	Cleaning	Neutralize & sewer	MMSD	NA	NA	5 lbs	Drum
Cooling Tower Air Filters	Cooling Tower	Disposal	Viola - Waste Management	Yes	Yes	0 to 4	Dumpster
Parts washer solution (combustible)	Maintenance/Tool Room	Recycling	Crystal Clean	Yes	Yes	487 gal	Drum
Wood packing crates	Packaging	Disposal	Caledonia Crating and Pallet	Yes	Caledonia, WI		Skids
Old skids	Packaging	Disposal	Caledonia Crating and Pallet	Yes	Caledonia, WI		Dumpster
Wood skid	Packaging	Recycling	Caledonia Crating and Pallet	Yes	Caledonia, WI		Skids
General waste (hose, pipe, plastic bags, floor sweep)	Production Department	Disposal	Viola - Waste Management	Yes	Yes		Dumpster
Cardboard	Office/Production	Recycling	Viola - Waste Management	Yes	Yes		Cardboard gaylord
Paper	Office	Recycling	Viola - Waste Management	Yes	Yes		Cardboard gaylord
Car batteries	Vent Testing	Recycling	Viola - Waste Management	Yes	Yes		Skids
Batteries	Portable devices	Disposal					
Food garbage	Lunchroom	Disposal	Viola - Waste Management	Yes	Yes		Dumpster
Food waste	Vending machine	Disposal	Viola - Waste Management	Yes	Yes		Box
Medical waste	Injury/blood testing	Disposal	Viola - Waste Management	Yes	Yes		Container
Ammonium hydroxide	Blue print machine	Cleaning	in house	NA	NA		Plastic jug
Computer parts	Computer	Recycling	Viola - Waste Management	Yes	Yes		Keyboard, mouse - dumpster, CPU Monitor - skid
Latex paint	Building maintenance	Open can, let dry into	Viola - Waste Management	Yes	Yes		Dumpster
Light bulbs	Maintenance	Recycling	Crystal Clean 73254-10-13				4 foot Cardboard box

Waste name	Generated from	Disposal/Recycl. Method	Disposal/Recyc Company	Transporter	Disposal (location if known)	Qty annual	Storage Container
Ballasts from flourescent lights	Entire Facility	Recycling	Lamp Recycling				Cardboard box
Small Propane Cylinders	Melting Plastic	Disposal	Airgas	Yes	Yes		Dumpster
Anti-freeze	Lift truck maintenance	Recycling	Yale Company	Yes	Yes	1 gallon	Plastic jug
						included in blowdown total	
Discharged water	Compressor	Discharge	MMSD	NA	NA		
Discharged water	Water softener	Discharge	MMSD	NA	NA		
Water from floor scrubbing	Cold Form Dept. Floor scrubbing	Waste Water Treat	Crystal Clean	Yes	Yes		Drums
Cooling Tower Blowdown Water	Cooling Tower	Discharge	MMSD	NA	NA	234,200 gal	

Waste name	Generated from	Disposal/Recycl. Method	Disposal/Recyc Company	Transporter	Disposal (location if known)	Qty annual	Storage Container
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Waste may be generated by the facility			
Asbestos	Building insulation, tiles	None in past 20 yr	Not Applicable
Lead paint	Building paint (old)	Recycling	Not Applicable
CFCs (Freon)	air conditioner	Recycling	HVAC Contractor
Brass, bronze, bearings,	Machine Shop	Recycling	Scrap Metal Broker
Wire, cable and switch gear	Entire Facility	Disposal & Recycle	Scrap Metal Broker
Tires	Fork Trucks	Disposal	Yale Equipment
Toner Cartridge	Printer, copier	Recycle	Office Supply Vendor
Used equipment	Entire Facility	Sold	Used Equipment Broker

* MMSD = Milwaukee
 Metropolitan Sewer District



Spartan Chemical Company, Inc.

Material Safety Data Sheet

SECTION I: PRODUCT INFORMATION

Product Name or Number (as it appears on label):
ORANGE TOUGH 40
Product Number: 2240

Product Division:
Janitorial

Spartan Chemical Company, Inc.
1110 Spartan Drive
Maumee OH 43537

Product/Technical Information: 1-(800)-537-8990
Medical Emergency: 1-(888)-314-6171 (24 hours)
Chemical Leak/Spill Emergency: CHEMTREC 1-(800) 424-9300 (24 hours)

Shipping Description: Non Hazardous Products

NFPA Ratings:	HMIS Ratings:
Health: 2 - Moderate Fire: 2 - Moderate Reactivity: 0 - Minimal	Health: 2 - Moderate Fire: 2 - Moderate Reactivity: 0 - Minimal Pers. Prot. Equip.: See Section VIII

SECTION II: HAZARDOUS INGREDIENTS

(Listed when present at 1% or greater, carcinogens at 0.1% or greater) All component chemicals are listed or exempted from listing on the "TSCA Inventory" of chemical substances maintained by the U.S. Environmental Protection Agency.

Chemical Name(s)	%Wt	CAS Registry No.	Table Z-1-A			NTP, IARC or OSHA Carcinogen
			TWA mg/m ³	STEL mg/m ³	CEILING mg/m ³	
d-limonene	35-40	5989-27-5	Not Established	Not Established	Not Established	No
Nonyl phenol ethoxylate	10-15	127087-87-0	Not Established	Not Established	Not Established	No
Triethanolamine	05-10	27323-41-7	Not Established	Not Established	Not Established	No
dodecylbenzenesulfonate	-	-	-	-	-	-
Triethanolamine	05-10	102-71-6	5 (ACGIH)	Not Established	Not Established	No
Hexylene glycol	01-05	107-41-5	Not Established	Not Established	121 (NIOSH)	No
Dicarboxylic fatty acid, dipotassium salt	01-05	66375-37-9	Not Established	Not Established	Not Established	No
Tetrasodium ethylene diaminetetraacetate	01-05	64-02-8	Not Established	Not Established	Not Established	No
	-	-	-	-	-	-

SECTION III: PHYSICAL DATA

Boiling Point: >212 °F	Vapor Pressure: Unknown
Vapor Density (AIR = 1): Unknown	Solubility in Water: Emulsifiable
pH: 9.0	Specific Gravity (H ₂ O=1): 0.96
Evaporation Rate (but.acet.=1): <1	Percent Solid by Weight: 20-25
Physical State: Liquid	
Appearance & Odor: Clear, orange liquid. Orange citrus fragrance.	

SECTION IV: FIRE & EXPLOSIVE HAZARD DATA

Flash Point: 124°F	Method Used: ASTM-D56
Flammable Limits: Unknown	Flame Extension: N/A
Extinguishing Media: Foam, dry chemical, carbon dioxide, water fog or spray	
Special Fire Fighting Procedures: Wear NIOSH approved self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.	
Unusual Fire & Explosive Hazards: Combustible liquid and vapor. Keep away from heat, sparks or flame. Combustion products are toxic.	

SECTION V: HEALTH HAZARD DATA

Threshold Limit Value: Not Established	Primary Routes of Entry: Inhalation, Skin Contact, Eyes and Oral
Effects of Overexposure- Causes eye irritation: Symptoms may include pain, redness and swelling of the conjunctiva.	
Conditions to Avoid: Causes skin irritation: Symptoms may include redness, pain and swelling.	
Harmful if swallowed: Symptoms may include pain, nausea, vomiting and diarrhea.	
Breathing product vapors or mist may cause respiratory irritation: Symptoms may include nasal discomfort and coughing. Contains d-limonene, hexylene glycol and triethanolamine which may cause skin sensitization with repeated contact. Repeated overexposure to triethanolamine may cause liver and kidney damage.	
Avoid contact with eyes, skin and clothing. Avoid breathing product vapors or mists. Do not swallow. Use with adequate ventilation. Wash thoroughly after handling.	
Conditions Aggravated by Use: Use of this product may aggravate preexisting skin, eye and respiratory disorders including asthma and dermatitis.	
Emergency & First Aid Procedures:	
Eyes: Flush eyes with water for at least 15 minutes. Remove contact lenses. Get medical attention.	
Skin: Remove contaminated clothing. Flush skin with water for at least 15 minutes. Get medical attention if irritation persists. Wash contaminated clothing before reuse.	
Ingestion: Do not induce vomiting. Drink one or two glasses of water to dilute product. Get medical attention. Do not give anything by mouth to an unconscious person.	
Inhalation: Move person to fresh air. Get medical attention if irritation persists.	

SECTION VI: REACTIVITY DATA

Stability: Stable	Incompatible Materials: Strong oxidants
Hazardous Decomposition Products: CO, CO ₂	Hazardous Polymerization: Will Not Occur

SECTION VII: SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled:	Dike and contain spill with inert material (sand, earth, commercial absorbent, etc.) and transfer to containers for disposal. Keep spill out of storm sewers and waterways.
Waste Disposal Method:	Dispose of in compliance with all federal, state and local laws and regulations.

SECTION VIII: SPECIAL PROTECTION INFORMATION

Respiratory Protection:	Not normally required when good general ventilation is provided. However if exposure limits are exceeded (see Section II) or if respiratory irritation occurs, the use of a NIOSH approved respirator suitable for the use-conditions and chemicals listed in Section II should be considered.
Ventilation:	Provide good general ventilation. Local exhaust ventilation may be necessary for some operations.
Protective Gloves(Specify Type):	Rubber or other impervious gloves.
Eye Protection(Specify Type):	Splash goggles are recommended to prevent eye contact.
Other Protective Equipment:	See 29 CFR 1910.132-138 for further guidance.

SECTION IX: SPECIAL PRECAUTIONS

Precautions; Handling & Storing:	Combustible liquid and vapors. Flash Point 124°F. Keep away from heat, sparks, or open flame. Keep container tightly closed. Store in a cool, dry area. Do not store above 120°F.
Other Precautions:	Keep out of reach of children.

© SCC 01/09/2012
ORANGE TOUGH 40

Name: Ronald T. Cook
Effective Date: 01/09/2012

Title: Manager, Regulatory Affairs
Supersedes: 09/22/2008

Ref: 29 CFR 1910.1200 (OSHA) Changes: General review

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Material Safety Data Sheet

COATING FOR LEAD BUSHINGS, PPO-100

WEDOR PART No. P-5001

MSDS No. 143

Date of Preparation: 03/06

Revision:

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: COATING FOR LEAD BUSHINGS, PPO-100

Chemical Formula: Complex Mixture

CAS Number: N/A

Other Designations: N/A

General Use: Solvent Mixture, Coating

HMIS	
H	2
F	0
R	0
PPE†	
†Sec. 8	

Manufacturer: Wedor Corporation., 1907 S. 89th Street, West Allis, WI 53227, Phone (414)329-9047, FAX (414)329-9043,
Emergency Phone Number 1-800-424-9300.

☆☆☆☆ Emergency Overview ☆☆☆☆

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt or % vol.
Perchloroethylene (tetrachloroethylene)	127-18-4	93-98%
Oppanol B-50	N/A	2-3%
Wood Rosin	N/A	2-3%

Trace Impurities:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
Perchloroethylene	100ppm; Ceiling 200ppm, 5- min maximum peak in any 3 hours.	None Estab.	25 ppm	100 ppm	Minimize workplace exposure con- centrations	None Estab.	150 ppm.
Oppanol B-50	None Estab.	None Estab.	None Estab.	None Estab.	None Estab.	None Estab.	None Estab.
Wood Rosin	None Estab.	None Estab.	None Estab.	None Estab.	None Estab.	None Estab.	None Estab.

Toxicity Data:

Oral (rat) LD50: 2629mg/kg, Inhalation (man) LDLO: 2857 mg/kg, Inhalation (human) TCLO: 96ppm/7hrs, Inhalation (man): 280ppm/2hrs, Inhalation (man) TCLO: 600ppm/10min, Inhalation(rat) LCLO: 34200 mg/m3/8hrs.

Irritation: Skin (rabbit): 810 mg/24h-SEVERE, Eye (rabbit): 162mg - mild

Section 3 - Physical and Chemical Properties

Physical State: Liquid

Appearance and Odor: Amber liquid with a solvent odor.

Odor Threshold: N/A

Vapor Pressure: 2.11 at 22 deg C

Vapor Density (Air=1): Heavier than air.

Formula Weight: 13.13 lbs/gal.

PH: Not applicable

Water Solubility: 0.02% by weight

Other Solubilities: Other Solvents and Oils

Boiling Point: 121 deg C (250 deg F) at 760mm Hg

Freezing/Melting Point: -19 deg C (-2.2 deg F)

Volatile Component (% vVol): 100

Evaporation Rate (EHTER =1): 0.09

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COATING FOR LEAD BUSHING PPO-100

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Section 4 - Fire-Fighting Measures**Flash Point:** Plus 110 deg F**Flash Point Method:** TCC**Burning Rate:** N/A**Autoignition Temperature:** 490 deg C**LEL:** 1.8% v/v**UEL:** 11.5% v/v at 740 mm Hg 160 deg C**Flammability Classification:** Non-Flammable Liquid.

Extinguishing Media: Dry chemical, carbon dioxide or foam is recommended. Water spray is recommended to cool or protect exposed containers materials or structures. Water may be ineffective for extinguishments unless used under favorable conditions by experienced fire fighters. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Unusual Fire or Explosion Hazards: Use self contained breathing apparatus. Wear full protective clothing. Use water spray to cool fire-exposed containers and structures.

Hazardous Combustion Products: Combustion can yield corrosive fumes of hydrochloric acid, carbon monoxide and small amounts of toxic phosgene.

Fire-Fighting Instructions: Emergency responders in the danger area should wear bunker gear and self-contained breathing apparatus for fires beyond the incipient stage. In addition, wear other appropriate protective equipment as condition warrant. Isolate the danger area. Keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Water spray may be useful in dispersing vapors. Cool equipment with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

**Section 5 - Stability and Reactivity**

Stability: Coatings for lead bushings PPO-100 is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization will not occur.

Chemical Incompatibilities: Avoid reaction with oxidizing agents. Segregate from strong alkalis.

Haloalkenes are highly reactive. Some of the more lightly substituted lower members are highly flammable; many member of the group are peroxidizable and polymerizable.

Section 6 - Health Hazard Information**Potential Health Effects**

Primary Entry Routes: Inhalation, skin contact, eye contact

Target Organs: Liver, kidneys, eyes, upper respiratory system, skin, central nervous system (CNS).

Acute Effects

Inhalation: Acute intoxication by halogenated aliphatic hydrocarbons appears to take place over two stages. Signs of a reversible narcosis are evident in the first stage and in the second stage signs of injury to organs may become evident. A single organ alone is (almost) never involved.

The vapor is highly discomforting to the upper respiratory tract and lungs.

Inhalation hazard is increased at higher temperatures.

Anesthetic and narcotic effects (with dulling of senses and odor fatigue) are a consequence of exposed to chlorinated solvents. Individual response varies widely; odor may not be considered objectionable at levels which quickly induce central nervous system effects.

Eye: The liquid may produce eye discomfort and is capable of causing temporary impairment of vision and/or transient eye inflammation; ulceration Eye contact may cause lachrymation (tears) and burning sensation.

The vapor is highly discomforting to the eyes.

The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

Skin: The liquid is highly discomforting to the skin if exposure is prolonged and may cause drying of the skin, which may lead to dermatitis.

Toxic effect may result from skin absorption.

Absorption by skin may readily exceed vapor inhalation.

Symptoms for skin absorption are the same as for inhalation.

Bare unprotected skin should not be exposed to this material.

The material may accentuate any pre-existing skin condition.

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COATING FOR LEAD BUSHINGS PPO-100

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The material may produce severe skin irritation after prolonged or repeated exposure, and may produce a contact dermatitis (nonallergic).

Ingestion: Considered an unlikely route of entry in commercial/industrial environments.

The liquid is highly discomforting and toxic if swallowed and may be fatal if swallowed in large quantity.

Ingestion may result in nausea, abdominal irritation, pain and vomiting.

Carcinogenicity: NTP-Class 2B, Reasonably anticipated to be a carcinogen, sufficient evidence of Carcinogenicity from studies in experimental animals; IRAC- Group 2B, Possibly carcinogenic to humans; OSHA – Not listed; NIOSH – Listed as a carcinogen; ACGIH – Class A3, Animal carcinogen; EPA-Not listed; MAK- Class B, Justifiably suspected of having carcinogenic potential.

Chronic effects: Prolonged or continuous skin contact with liquid may cause defatting with drying, cracking, irritation and dermatitis following.

Workers inhaling 232 to 385 ppm for 8 hours/day, 5 days/week for 2 to 6 years have shown abnormal hepatic function, including cirrhosis, with lightheadedness, headache, malaise and dizziness.

Emergency and First Aid Procedures

Inhalation: Move the exposed person to fresh air at once if symptoms persist seek medical care. If breathing has stopped, give artificial respiration. If breathing is difficult, give humidified oxygen administered by qualified personnel. Seek immediate medical attention.

Eye Contact: If the chemical contacts the eyes, immediately wash the eyes with large amounts of room temperature water for at least 15 minutes, occasionally lifting the lower and upper lids. Seek medical attention. Contact lenses should not be worn when working with this chemical

Skin Contact: If this chemical contacts the skin, promptly wash the contaminated skin with soap and water for atleast 15 minutes. If this chemical penetrates the clothing, promptly remove the clothing and wash the skin with soap and water. If irritation or redness develops, seek medical attention. Launder all clothing before reuse.

Ingestion: Aspiration hazard, if the chemical is ingested and the person is conscious, do not induce vomiting because this material can enter the lungs and cause severe lung damage and cause burns to the esophagus. If victim is drowsy or unconscious, place on the left side with head down. If possible, do not leave victim unattended. Seek medical attention.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Note to Physicians: Treat symptomatically.

Do not administer sympathomimetic drugs as they may cause ventricular arrhythmias.

For acute or short-term repeated exposures to Perchloroethylene:

Tetrachloroethylene/Perchloroethylene is well absorbed through the lungs with peak levels more important than duration in determining blood concentration..

Lungs excrete most of the absorbed Tetrachloroethylene in an unchanged state; about 3% is converted by the liver to form trichloroacetic acid and subsequently excreted by the kidney. Exhaled material has a biologic half-life of 65 hours.

Section 7 - Spill, Leak, and Disposal Procedures

Important Note (spills): Evacuate and ventilate the spill area. Wear skin and eye protection and a positive pressure air-supplied respirator during clean-up. High vapor concentrations can rapidly accumulate in an enclosed or poorly ventilated space. Contain the spill. Prevent liquid from entering sewer. Soak up liquid with absorbent and shovel into waste container. Remove container from work area.

Spill /Leak Procedures: Absorb the spill on suitable absorbant and collect for disposal.

Small Spills: Take up with sand or other non-combustible absorbant material and place into containers for later disposal.

Large Spills

Containment: Control large spills by diking. Dispose all spilled material in accordance with federal, state, and local regulations.

Cleanup: As above indicated under the Important Note spills.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

Disposal Regulatory Requirements: Discarded product is a hazardous waste, U210 under RCRA 40 CFR 261.33. Dispose of these materials in a facility permitted for hazardous waste.

Container Cleaning and Disposal: Emptied containers retains hazardous product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse emptied container except for storage and shipment of original product. Ensure container is completely empty. Puncture or otherwise destroy empty container before disposal.

Ecological Information: See EPA Regulations.

EPA Regulations:

RCRA Hazardous Waste Number: Perchloroethylene, Listed (40 CFR 261.33) Listed U210 Toxic Waste.

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COATING FOR LEAD BUSHING PPO-100

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CERCLA Hazardous Substance (40 CFR 302.4) listed specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112, Perchloroethylene
SARA Toxic Chemical (40 CFR 372.65): Listed Perchloroethylene
SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ)
TSCA: Listed Perchloroethylene

Section 8 - Exposure Controls / Personal Protection**Engineering Controls:**

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative Controls:

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.

Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Special Precautions and Comments

Handling Precautions: See below

Storage Requirements: Store in a cool, dry place. Close container tightly when not in use.

DOT Transportation Data (49 CFR 172.101):**Shipping Name:**

Tetrachloroethylene Solution

Shipping Symbols: PG III

Hazard Class: 6.1

ID No.: UN1897

Packing Group: III

Label: PG III

Special Provisions (172.102):

IB3, N36, T4, TP1

Packaging Authorizations

a) Exceptions: 153

b) Non-bulk Packaging: 203

c) Bulk Packaging: 241

Quantity Limitation:

a) Passenger, Aircraft, or Railcar: 60 L

b) Cargo Aircraft Only: 220 L

Vessel Stowage Requirements

a) Vessel Stowage: A

b) Other: 40

Prepared By: Wayne T. Benz

Revision Notes:

Disclaimer: The data contained herein is drawn from recognized sources and believed to be accurate as the date of issue. Persons who have or should obtain professional knowledge intend this information for use and experience in the subjects discussed, and is presented only for your evaluation of the suitability of this product for your use, and for compliance with Federal and State regulations. The manufacturer makes no warranty, express or implied, and disclaims all liability for the accuracy, completeness, and reliability of any information contained herein.



October 7, 2013

George Koleas, Human Resources Director
Tulip Corporation
714 E. Keefe Avenue
Milwaukee, WI 53212

Dear George,

Enclosed you will find the report and invoice from the air monitoring and wipe sampling survey performed at your facility on September 16, 2013.

If you have any questions, please feel free to contact me. Thank you for this opportunity to provide service to Tulip Corporation.

Sincerely,

Carol A. Chojnacki, MS, CIH
Principal Industrial Hygiene Consultant
IH Source, LLC

Enclosure



Industrial Hygiene Survey
At
Tulip Corporation
Milwaukee, WI

By
Carol A. Chojnacki, CIH, MS
IH Source, LLC
New Berlin, WI 53151

Survey Date: September 16, 2013

Report Date: October 7, 2013



Summary

On September 16, 2013, an industrial hygiene survey was conducted at Tulip Corporation in Milwaukee, WI. The purpose was to evaluate employee inhalation exposures to lead and perchloroethylene and to collect lead wipe samples.

The lead air sampling results were all well within the OSHA exposure limits.

The perchloroethylene results for the paint line operator were all well within the OSHA and ACGIH exposure limits.

The lead wipe samples ranged from <42 ug/ft² to 2400 ug/ft². There are no occupational exposure limits for metal wipe sampling to compare these results to. They can be compared relative to each other to determine different degrees of contamination and where more cleaning would be helpful. At the bottom of Table 3, the HUD (US department of Housing and Urban Development) values for residential lead wipe samples are listed for reference purposes only.

Recommendations are included in this report.

This industrial hygiene survey was conducted in a manner that is consistent with the degree of care and skill ordinarily exercised under similar circumstances by members of the industrial hygiene consulting profession performing the same type of work under the similar conditions existing on the same date and time. Under other conditions or in other locations, the results and recommendations made may be different. The recommendations made in this report are based on the information made available before and during the survey. They represent the professional judgment of the author.

Introduction

On September 16, 2013, an industrial hygiene survey was conducted at Tulip Corporation in Milwaukee, WI. The purpose was to evaluate employee inhalation exposures to lead and perchloroethylene and to collect lead wipe samples from surfaces within the building. Exposure results will be compared to the OSHA and ACGIH exposure limits to determine if overexposures exist. Appropriate recommendations will be made, if overexposures are detected.

Description of Operations

Five employees were monitored for lead. They included Shirley Harrison (Cold form #2 & #4), Felicia George Atkinson (Cold form extruder), Jose Ortiz (Cold form DCFCH2), Dennis Mitchell (Cold form machinist), and Andrea McLeod (Plastics #K13). The Plastics department is in a separate room from Cold Forming and there are not expected to be high lead exposures at the plastic injection machines. Lead wipe samples were also collected from various surfaces in the plant, as listed in Table 3.

The painter was monitored to determine his exposure to perchloroethylene, which is the 93-98% component of the coating that is used there. He wore separate sampling devices for two periods that he painted (10:32 a.m. – 12:10 p.m. and 1:36 p.m. – 3:00 p.m.) During one of these periods he also wore a 15-minute sample to determine the STEL (15-minute Short Term Exposure Limit) concentration. When he was not working at the paint booth he operated plastic injection machines to relieve other employees during their breaks. The paint booth is partially enclosed and has local exhaust ventilation.

Health Effects and Exposure Limits

The health effects and exposure limits associated with lead and perchloroethylene are as listed below.

The health effects and exposure limits associated with exposure lead are as follows:

Lead: Overexposure to lead can cause a variety of health problems including anemia, abdominal symptoms (colic, anorexia, constipation, pain), tremors, insomnia, lassitude and reproductive effects (sterility, miscarriages, and low birth weights, birth defects). OSHA has established a PEL for airborne lead of 0.05 mg/m^3 as a time-weighted average (TWA) with an action level of 0.030 mg/m^3 . OSHA has a complete standard for lead (1910.1025) that specifies the actions that must be taken when the air lead levels exceed the standard or action level. The ACGIH has a TLV of 0.05 mg/m^3 as a TWA, with an A3 carcinogen rating (animal carcinogen). It should be noted that the OSHA standard is the legal standard that industry must comply with. The OSHA standard should be consulted for details since there are many requirements pertaining to the frequency of air sampling, medical surveillance programs, recordkeeping requirements, personal protective equipment selection and use, personal hygiene and clothing practices, and engineering controls.

In addition to airborne lead exposure, ingestion of lead can cause the same health effects that are noted above. Ingestion happens primarily when contaminated hands contact the mouth and nose (eating, drinking, smoking, gum chewing). There are no OSHA or ACGIH exposure limits for dermal exposure but it is important to prevent ingestion since it can add to the total body burden of lead and cause the same adverse health effects as inhalation exposure.

All of the general industry occupational exposure limits that have been established for lead are for airborne exposures. For wipe samples, we can refer (as a guideline, not a regulation) to the US Department of Housing and Urban Development Limits for Lead wipe samples in residential settings, which are as follows:

- 100 ug/ft² Floor
- 500 ug/ft² Window sill

In OSHA directive CPL 02-02-058, OSHA recommends using the HUD limit for floors (which was 200 ug/ft² at the time the directive was released) when evaluating cleanliness of change and storage areas and lunchrooms for the construction lead standard 1926.62. The HUD floor limit has been updated to 100 ug/ft² since this directive was published in 1993. See attached excerpt from the OSHA directive CPL 02-02-058.

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=1570

Perchloroethylene (tetrachloroethylene): Eye irritation may occur at concentrations above 100 ppm; narcosis may occur at higher concentrations. The NTP (National Toxicology Program) has concluded that perchloroethylene is carcinogenic by inhalation in both rats and mice. Based on this data, NIOSH has also concluded that perchloroethylene is a potential human carcinogen. The ACGIH TLV is 25 ppm with a STEL of 100 ppm and they have classified it as an A3 carcinogen (confirmed animal carcinogen with unknown relevance to humans; epidemiological studies do not confirm an increased risk of cancer in exposed humans). OSHA has a number of PELs depending on the exposure time period being applied. The OSHA PELs are 100 ppm as a TWA, 200 ppm as a ceiling limit (never to be exceeded), and 300 ppm as a peak (5 minutes in any 3 hours).

Sampling and Analytical Methods

Lead air samples: Air samples for lead were collected using 0.8 micron, 37-millimeter diameter mixed cellulose ester filters attached to SKC personal air sample pumps. The sampling train was calibrated using a TSI 4100 Series Calibrator (a primary standard). The cassette was worn on the employee's lapel. A blank was prepared. The samples were analyzed using inductively coupled plasma optical emission spectrometry (ICP-OES) by an AIHA Accredited Laboratory (Wisconsin Occupational Health Lab).

Lead wipe samples: Wipe samples for lead were collected using Pallintest lead wipes. A 10 cm by 10 cm square area was wiped using a wipe sampling template of the same size. A field blank was prepared. The samples and blank were analyzed using axial/radial inductively coupled argon plasma optical emission spectrometry by an AIHA Accredited

Laboratory (Wisconsin Occupational Health Lab). The method used was an in-house method, based on NIOSH 7300.

Organic Vapors: Air samples for organic vapors were collected on charcoal tubes attached to personal air sampling pumps. The pumps were calibrated before and after sampling using a TSI Calibrator (a primary standard). The sampling tube was attached to the employee's lapel. A blank was prepared. The samples and blank were analyzed using gas chromatography by an AIHA Accredited Laboratory (Wisconsin Occupational Health Lab).

Results and Discussion

The air and wipe sampling results are listed in the attached tables. The lead air sampling results (Table 1) were all well within the OSHA exposure limits. The range of sample results was from <0.0020 to 0.0054. These are all at or below 10 % of the OSHA PEL and 18% of the OSHA Action Level for lead.

The perchloroethylene results for the paint line operator (Table 2) ranged from 1.3 ppm to 1.6 ppm for the longer samples, which were each 86 and 98 minutes. When the paint line operator's exposure was time weighted for 8-hours, assuming zero exposure for the time not sampled, his 8-hour TWA was 0.55 ppm. All of these results are well within the OSHA 8-hour PEL of 100 ppm and the ACGIH 8-hour TLV of 25 ppm.

The paint line operator's 15-minute short-term sample result for perchloroethylene was 1.9 ppm. This was also well within the OSHA Ceiling Limit of 200 ppm and the ACGIH Short Term Exposure Limit (STEL) of 100 ppm.

The lead wipe samples are listed in Table 3. The lead wipe sample results ranged from <42 ug/ft² to 2400 ug/ft². There are no occupational exposure limits for metal wipe sampling to compare these results to. They can be compared relative to each other to determine different degrees of contamination and where more cleaning would be helpful. At the bottom of Table 3, the HUD (US department of Housing and Urban Development) values for residential lead wipe samples are listed for reference purposes only.

Recommendations

Based on the results of this survey the following recommendations are provided:

1. **Employee Notification:** Employees should be notified of their personal lead monitoring results within 15 working days of your receipt of these results.
2. **Additional monitoring** should be done whenever there has been a change in production, process, controls or personnel that may result in new or additional exposure to lead. At the current exposure levels, quarterly or semi-annual monitoring is not required.

3. **Written Record:** Make a written record of these results that includes this report along with the social security number of each employee monitored (this is per 1910.1025(d)(5).
4. **Recordkeeping:** Maintain all air monitoring records for a period of 40 years or for the duration of employment plus 20 years, whichever is longer.
5. **Lunchroom cleaning:** Review the wipe sampling results to determine locations where regular cleaning further reduce ingestion exposures. These results could also be used as an education tool for personal hygiene.
6. **Training:** Even though your employee exposure results do not exceed the PEL or Action Level and full training is not required, you are still required to inform the employees of the content of Appendices A and B of 1910.1025. These results indicate that inhalation exposure is low. However it is still important to emphasize the housekeeping aspect along with personal hygiene and eating, drinking, smoking restrictions in order to prevent elevated blood levels that can occur due to ingestion.
 - a. Appendix A:
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10031
 - b. Appendix B:
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10032

Table I
Lead Air Sampling Results
Tulip Corporation, Milwaukee, WI
September 16, 2013

Employee	Location/ Job	Sample Duration (minutes)	Lead Concentration (mg/m³)
Shirley Harrison	Cold forming department Machines #2 & 4	440	0.0033
Andrea McLeod	Plastics department Machine #K13	436	<0.0020
Felicia George Atkinson	Cold forming department Extruder operator	310	0.0054
Jose Ortiz	Cold forming dept Machine #DCFCH2	432	<0.0020
Dennis Mitchell	Cold forming dept Machinist – cleaning	380	<0.0023
OSHA Permissible Exposure Limit			0.05
OSHA Action Level			0.03
ACGIH Threshold Limit Value			0.05

Table 2
Perchloroethylene Air Sampling Results
Tulip Corporation, Milwaukee, WI
September 16, 2013

Employee	Location/ Job	Sample Duration (minutes)	Concentration (ppm)
Shane Huck	Paint Line -Machine operator	98	1.3
Shane Huck	Paint Line -Machine operator	15	1.9
Shane Huck	Paint Line -Machine operator	86	1.6
Shane Huck	Paint Line -Machine operator	480 (8-hour TWA)	0.55
OSHA 8-hour TWA Permissible Exposure Limit			100
OSHA Ceiling Limit			200
ACGIH 8-hour TWA Threshold Limit Value			25
ACGIH 15-minute Short Term Exposure Limit			100

Table 3
Lead Wipe Sampling Results
Tulip Corporation, Milwaukee, WI
September 16, 2013

Wipe Sample Location	Lead (ug/100cm ²)	Lead (ug/ft ²)
Machine K13 – door near handle	15	139
Lunchroom – 3 rd table from entry door	<4.5	<42
Lunchroom – entry door brass push plate	260	2415
Lunchroom – refrigerator door	36	334
Lunchroom – table closest to entry door	<4.5	<42
HUD clearance level for residential floors* (listed here for reference purposes only)		100

*There are no OSHA wipe sampling limits for general industry. US Dept. of Housing and Urban Development Limits for Lead wipe samples in residential settings:

- 100 ug/ ft2 Floor
- 500 ug/ft2 window sill

These are listed here as a guideline;

OSHA recommends using the HUD limit for floors (which was 200 ug/ft2 at the time the directive was released) when evaluating cleanliness of change and storage areas and lunchrooms for the construction lead standard 1926.62. The HUD floor limit has been updated to 100 ug/ft2 since this directive was published in 1993. See attached excerpt from the OSHA directive CPL 02-02-058. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=1570

Definitions

OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists
ppm	Parts of contaminant per million parts of air sampled
mg/m³	Milligrams of contaminant per cubic meter of air sampled
µg/m³	Micrograms of contaminant per cubic meter of air sampled
ND	None Detected. This means that the laboratory has not detected any amount of a compound in the sample. The detection limit will vary depending on the sample volume.
PEL	Permissible Exposure Limit--OSHA's legal standard as printed in 29 CFR 1910.
TLV®	Threshold Limit Value--ACGIH's recommended exposure limit as printed in "2012 TLVs® and BEIs®- Threshold Limit Values for Chemical Substances and Physical Agents", published by the ACGIH.
8- hour TWA	8-hour Time-weighted average. The 8-hour TWA exposure limit is the average of an exposure over an eight-hour shift; unless otherwise noted, exposure limits in this report are expressed as 8-hour TWAs. The 8-hour TWA is the concentration for a conventional 8-hour workday and 40 hour workweek to which nearly all workers may be repeatedly exposed day after day, without adverse effects.
STEL	Short Term Exposure Limit. Usually a 15-minute time-weighted average (TWA) exposure that should not be exceeded at any time during a workday, even if the eight-hour TWA is within its TLV or PEL TWA.
C	Ceiling limit. Ceiling limits may not be exceeded during any part of the working exposure.

Appendix D

Post-Inspection Informational Exchange Documentation

Inspection Date:
March 20, 2015

Facility Name and ID Number:
Tulip Corporation
EPA ID: WID006113013

Inspector:
Brenda Whitney
Compliance Section 2
RCRA Branch
Land and Chemicals Division

7/10/15

Phone questions for Tulip.

Dan Askin, Esca Tech

George Koleas, Tulip Corporation

Notes by Brenda Whitney, US EPA

1. Oil generated at the Tulip facility is processed through an oil water separator. The filters for the influent oil/water must be discarded at some point. Show me analytical data for those filters.

I believe the documentation that was provided are simply waste approvals and shipping documents. I am looking for the evidence to support a non-hazardous waste determination.

Answer: In 2002/2003 heritage crystal clean did the determinations for hazardous/non-hazardous. They did not provide any analytical documents. Do not have analyticals for the filters.

2. I also want documentation that the wastewater that is hauled off by crystal clean has been tested to determine if it is non-hazardous.

Answer: None available.

3. Contaminated Oil (Not Lubricating Oil) is a term used in the "Handling/Disposal-Waste and Recyclable Items document. Oil that is contaminated with foreign substances such as plastic pellets or dirt.

- a. What happens to this material? Is it shipped off-site as used oil? Is it still processed in-house? Is it sent off-site as a solid waste?

Answer: Includes anything that does not goes back into the machines. Don't really know what's in it. Going to be disposed of through crystal clean. Gets sent off-site as used oil (attachment 1-04 and 2-01). Generator knowledge that halogens under 1000. Not sure if crystal clean does an f-scan) Generator knowledge.

4. Parts washers. I have an MSDS for Orange Tough 40. Is this material used at the facility anymore? George provided me with this MSDS twice. It has a flash point of 124F.

Answer:

- a. Looking at the facility drawing.
- b. Tool room, maintenance, spray booth aqueous wash tanks.
- c. Maintenance wash and tool room contain an organic solvent with flash 142F. Crystal clean picks it up and reclaims. Non-hazardous.
- d. Wash tank by spray booth, Uses Orange Tough 40.
 - i. used to wash anything that is contaminated with lead. Also handles washing thing by the spray booth. Goes off-site as lead-contamination.
- e. All other water that goes to the evaporator never meets HW limits.

5. Lead bushings wood rosin – contains Perc. Anything that touches this material could be contaminated with Perc. Air filters, partswasher, spills., etc...

Answer:

- a. Took a sample of the used air filter back in 2002/2003, not enough PCE left to meet the limit. Confirmed once, but no record.
 - b. Not included as a UHC under the LDRs for the partswasher waste in the lead-bushings area.
6. Your answer to #4 in regards to the spill of lead bushing (wedor)...“Lead contaminated materials are returned to the lead recycler as hazardous waste” What does this mean?

Answer:

- a. It means that any spill that may have goes into the lead waste streams. The spill occurred in the bushings area, still a lead processing area. So it may have recoverable lead in it.
 - b. I do not think that anything that contains lead at this facility is managed as hazardous waste, it is all managed as exempt. So if the spill is a hazardous waste, it is combined with a material that is exempt and being burned in a BIF.
7. Explain the lead materials exemption. Where did the quote in your response come from?

Answer:

- a. From the federal register.
He will have to research some more to find out where it actually came from.
 - b. Tulip is generating the following, which are all under Appendix XI
 - i. Baghouse bags
 - ii. Filters
 - iii. Clothing
 - iv. Floor sweepings
 - v. Respirator cartridges
 - vi. Rags
 - vii. Air emission control dust/sludge
 - viii. Spent batteries (testing)
 - ix. Cases, covers, vents
 - x. Mop water sludge
8. Why is dross not considered scrap, when it is specifically in the definition of processed scrap metal?

Answer:

- a. Mr. Askin did not see that dross was included under Processed Scrap Metal definition, but regardless, dross is covered under byproduct (which it is so-called in the federal register) as well as under excluded scrap metal.



3747 North Booth Street
Milwaukee, Wisconsin 53212-1603

Phone: (414) 962-5323
Fax: (414) 962-7003
www.esca-tech.com

June 26, 2015

To: Ms Brenda Whitney
United States Environmental Protection Agency
Region 5, LR-8J
77 West Jackson Boulevard
Chicago, IL 60604

From: Dan Askin

cc: George Koleas

Re: Tulip response regarding follow up questions contained in your emails dated June 9 & 15, 2015

Dear Ms. Whitney:

To the best of my knowledge and understanding:

1. Oil, Water and Oil filters – When mixtures of oil and water are generated this material is transferred to the Oil – Water Separator. All of the oil is filtered and goes back to the process. The water goes to the waste water evaporator.
 - i) Attached are:
 - (1) Analysis of Mixed Waste Water and Oil, file name: 1-01 Tulip MWi Waste Water + Oil-CBC-1986.pdf
 - (2) Used Oil Filters 1051, file name: 1-02 Tulip MWi Oil Filters Waste Deter-1051.pdf
 - (3) Used Oil Filters 1014 originate from the oil water separator, file name: 1-03 Tulip MWi Oil Filters Paper.pdf
 - (4) Used Oil 1054, file name: 1-04 3360_001 Used Oil 1054.pdf
 - (5) Used Oil Filters 1052, file name: 1-05 3361_001 Oil Filters 1052
 - (6) Used Oil Filter Shipping Paper for 1014, file name: 1-06 Tulip MWi Oil Filters Ship Papers.pdf
- 2) We are not clear on what material you are calling 'contaminated oil'. We generate waste oil from two sources:
 - i) Oil leaks are recovered with our Used Oil Mobile Vacuum Tank. Oftentimes the oil is mixed with water. All of this material goes to the oil water separator. The oil gets reused in our production equipment and the water goes to the evaporator. All of the oil goes through the paper oil filters listed above.
 - ii) Lubricating oils used in the production equipment gets changed as needed. This oil is collected by Crystal Clean. Attached is the waste approval form for this material provided by Crystal Clean file name: 2-01 Tulip MWi Used Oil Maint.pdf. They did not provide a copy of the waste determination.
 - iii) Since the lubricating oil is contained in the production equipment, there is no reason to suspect it has an opportunity to accumulate either lead or halogens.
- 3) Parts Washers:
 - i) For locations see attached drawing file name: 3-01 Tulip MWi Tier 2 Bldg Drwg_Rev2.pdf
 - ii) Shipping Papers:
 - (1) File Name: 3-02 Tulip MWi Non RCRA-Wash Ship Papers.pdf. This category includes the Maintenance and Tool Room Wash Tanks. The cleaner used is 142 Flash Petroleum Naptha, with a flash point of 61 °C. The content of these two tanks are combined by Crystal Clean when picked up.

Tulip Oil & Washers.docx



3747 North Booth Street
Milwaukee, Wisconsin 53212-1603

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Fax: (414) 962-7003
www.esca-tech.com

June 26, 2015

- (2) The water from the Spray Booth Aqueous Wash Tank is Hazardous for Lead.
 - (a) The shipping paper for the Aqueous Wash Tank is: File Name: 3-03 Tulip MWi RCRA-AQ Wash HWM.pdf
 - (b) For the waste analysis see: 3-04 Tulip MWi Parts Washer A-Lead Results-141341.pdf and 73254-10 Parts Wash Spray.pdf
- 4) Spilled Coating in Lead Bushing Spray Booth: We have a standard basic policy for any waste material that is potentially contaminated with lead and cannot be reclaimed as plastic or oil. These materials are added to the drum of lead contaminated materials. Lead contaminated materials are returned to the lead recycler as hazardous waste. As a general rule, the lead recycler will add this material to a furnace charge as replacement for purchased iron, silica and carbon additives to the furnace charge.

If you have any additional questions regarding the lead program at Tulip, please let me know.

Sincerely,
Dan Askin

10/14/86

LABORATORY REPORT

PAGE 1

CBC-AquaSearch

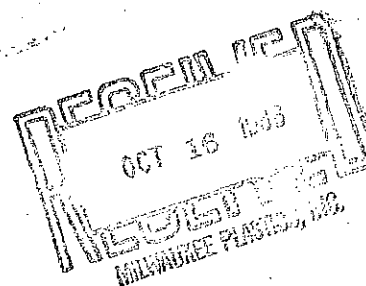
ENVIRONMENTAL SERVICES:
Analytical, Field & Consulting
Air
Water & Wastewater
Solid & Hazardous Waste
Industrial Hygiene

M600 8410177 S99

MILWAUKEE PLASTICS
4044 NORTH 31ST ST P. O. BOX 16001C
MILWAUKEE ,WI 53216
ATTN: JIM RAMAS

SAMPLE 86279-M09846 WASTEWATER & OIL
DATE COLLECTED 10/02/86 DATE RECEIVED 10/06/86

TEST NAME	RESULT	UNITS
PCB'S	<1.0	PPM
BARIUM - TOTAL	2.0	PPM
CADMIUM - TOTAL	0.17	PPM
CHROMIUM - TOTAL	<0.5	PPM
COPPER - TOTAL	3.4	PPM
LEAD - TOTAL	1.0	PPM
NICKEL - TOTAL	<0.4	PPM
SILVER - TOTAL	<0.1	PPM
ZINC - TOTAL	2.2	PPM
ARSENIC - TOTAL	0.024	PPM
SELENIUM - TOTAL	<0.010	PPM
MERCURY - TOTAL	<0.004	PPM
% CHLORINE	0.28	%
% MOISTURE	53	%
FLASH POINT (FAHRENHEIT)	>210	DEG. F
PH (UNITS)	8.2	
TOTAL SOLIDS	1.1	%
PHENOL	0.24	PPM
DISSOLVED SULFIDE	<1.0	PPM
TOTAL CYANIDE	<10	PPM



STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, 15TH EDITION, 1980.

METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, 1979, EPA-600/4-79-020.

TEST METHODS FOR EVALUATING SOLID WASTE, PHYSICAL/CHEMICAL METHODS, 1982, EPA SW846.

ANNUAL BOOKS OF ASTM STANDARDS, 1982.

METHODS 601-612, FEDERAL REGISTER, VOL. 44, NO. 233.

IF YOU HAVE ANY QUESTIONS PLEASE CONTACT OUR CLIENT SERVICE DEPARTMENT AT (414) 764 - 7005
OR CALL TOLL FREE; 1-800-592-5900, WAIT FOR DIAL TONE AND DIAL EXTENSION 332.

ANY REMAINING WASTE SAMPLES WILL BE RETURNED TO THE ADDRESS LISTED ABOVE 8 WEEKS FROM THE
RECEIVING DATE OF THIS REPORT.

N/T = NOT TESTED

N/A = NOT APPLICABLE

APPROVAL

DIVISION OF CHEM-BIO CORPORATION

140 EAST RYAN ROAD OAK CREEK, WISCONSIN 53154-4599

(414) 764-7005

Heritage-Crystal Clean
Approval for Waste Services

Clean Branch: MILWAUKEE
 Date of Approval: 03/03/2004
 Generator: TULIP CORP. (73254)
 Site: 1051 - 55GAL OIL FILTER RECY
 Wastestream: 73254-10-2
 Approval: 10-2

* This number must be provided when scheduling.

Release order, release number or shipper number required must be provided at time of scheduling.

Scheduling and Regulatory Information

Company Name: 1051- OIL FILTERS
 Scheduling Process: CHANGES/AUTOMOTIVE
 Waste Codes:
 Waste Codes:
 Shipping Description: NON-DOT/RCRA REGULATED, (1051-OIL FILTERS 55G)

Following information is provided to you for preparation of manifest and other documentation that may be required by permit generator records. It is based on data provided to Heritage-Crystal Clean on the wastestream survey form and/or on analytical results obtained from sample testing. If you have any questions about the information or do not agree with any portion of it, contact a customer services representative at (800) 827-7622. In most cases, HCC will prepare the necessary paperwork and present it to client for completion.

Generator	Facility	Transporter 1
TULIP CORP. 714 EAST KEEFE AVE MILWAUKEE, WI 53212 (317) 486-2770 EPA ID: INR000006536 STATE ID:	HERITAGE-CRYSTAL CLEAN, LLC 3970 W 10TH ST STE A INDIANAPOLIS, IN 46222 (317) 486-2770 EPA ID: INR000006536 STATE ID:	HERITAGE-CRYSTAL CLEAN, LLC 3970 W 10TH STREET, SUITE A INDIANAPOLIS, IN 46222 (317) 486-2770 EPA ID: INR000006536 STATE ID:

Heritage-Crystal Clean is hereby notifying you that the appropriate permits are available and accepts the waste you have been approved for (40CFR 264.12). HCC will provide transportation, treatment, storage, recovery and/or disposal of your waste. All work will be performed in accordance with federal, state and local regulations. This approval is based on information provided to HCC on the wastestream survey form.

Release order number

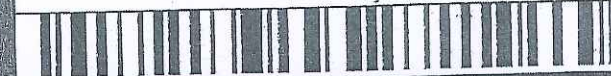
Release number or other pertinent information

WASTE

NON-RCRA or RCRA EXEMPT

Accum Start:	Route:
Loc: MILWAUKEE	MILWAUKEE RAT 1
Generator Site: PB: 040519	WO#: PP-0944347
TULIP CORP.	CC WS#: 73254-10-2
714 EAST KEEFE AVE	TSD Appl: 10-2
MILWAUKEE, WI 53212	EPA ID: WID006113013
	Waste Codes:

DOT: Product: 1051
 NON-DOT/RCRA REGULATED, (1051-OIL FILTERS 55G)



HERITAGE-CRYSTAL CLEAN

877-938-7948

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HCC 20330

STAGE - CRYSTAL CLEAN - BILL OF LADING

HCC Use Loc: MILWAUKEE Route: MILWAUKEE RAT 1 Page 1 of 1
 Doc #: 125446-2 - PB:040519 WO #: PP-0944347

Shipper's Name And Mailing Address

SHIP CORP
 1 EAST KEEFE AVE
 MILWAUKEE, WI 53212

Shipper EPA ID
 WID0006113013
 Shipper State ID

Operator Phone: (414) 963-3120 X

Transporter 1 Company Name
 STAGE-CRYSTAL CLEAN, LLC
 Transporter 2 Company Name

Transp 1 EPA Id
 INR000006536
 Transp 2 EPA Id

Transp 1 State Id
 Transp 2 State Id

Transp 1 Phone
 (317) 486-2770
 Transp 2 Phone

Transporter 3 Company Name

Transp 3 EPA Id
 Facility EPA Id
 INR000006535

Transp 3 State Id
 Facility State Id

Transp 3 Phone
 Facility Phone
 (317) 486-2770

Receiving Facility
 STAGE-CRYSTAL CLEAN, LLC
 70 W 10TH ST STE A
 INDIANAPOLIS, IN 46222

24Hr Emergency
 (800) 827-5221

Shipping Description	Container No.	Type	Total Qty	Unit Wt/vol
NON-DOT/RCRA REGULATED (1051-OIL FILTERS 55G)				

Special Handling Instructions, Additional Information and Handling Codes (as Applicable)
 CC:73254-10-2 TSD:10-2 (1051) S01

GENERATOR'S CERTIFICATION: This is to certify that the above-owned materials are properly classified, segregated, packaged, marked and labeled and are in proper condition for transport according to the applicable regulations of DOT, as required.

Printed/Typed Name Signature Date

Transporter 1 Acknowledgement of Receipt Materials

Printed/Typed Name Signature Date

Transporter 2 Acknowledgement of Receipt Materials

Printed/Typed Name Signature Date

Transporter 3 Acknowledgement of Receipt Materials

Printed/Typed Name Signature Date

Additional Description / Discrepancies

Receiving Facility: Certification of receipt of waste materials covered by this bill of lading.

Printed/Typed Name Signature Date



ORIGINAL - RETURN TO GENERATOR

Heritage-Crystal Clean Approval for Waste Services

Heritage-Crystal Clean Branch: MILWAUKEE
Effective Date of Approval: 01/03/2003
Generator: TULIP CORP. (73254)
Facility: 1014 - NON-HAZ THERMAL TREATMENT
Wastestream: 73254-7
Approval: 72672-8

* This number must be provided when scheduling.

Purchase order, release number or shipper number required must be provided at time of scheduling.

Shipping and Regulatory Information

Common Name: 1014-PAPER OIL FILTERS
Filtering Process: OIL FILTERING/CHANGE OIL
Waste Codes:
Waste Codes:

Shipping Description: NON-DOT/RCRA REGULATED, (NON HAZ FILTER PAPER)

Following information is provided to you for preparation of manifest and other documentation that may be required by government/generator records. It is based on data provided to Heritage-Crystal Clean on the wastestream survey form and/or on actual results obtained from sample testing. If you have any questions about the information or do not agree with any portion of it, please contact a customer services representative at (800) 827-7622. In most cases, HCC will prepare the necessary paperwork and present it to your client for completion.

Generator	Facility	Transporter 1
TULIP CORP. EAST KEEFE AVE MILWAUKEE, WI 53212 (414) 333-3120 X 326 EPA ID: WID006113013 STATE ID:	HERITAGE-CRYSTAL CLEAN, LLC 2970 W 10TH ST STE A INDIANAPOLIS, IN 46222 (317) 486-2770 EPA ID: INR0000000000 STATE ID:	HERITAGE-CRYSTAL CLEAN, LLC 2970 W 10TH STREET, SUITE A INDIANAPOLIS, IN 46222 (317) 486-2770 EPA ID: INR0000000000 STATE ID:

Heritage-Crystal Clean is hereby notifying you that the appropriate permits are available and accepts the waste you have been approved for (40CFR 264.12). HCC will provide transportation, treatment, storage, recovery and/or disposal of your waste. All work will be performed in accordance with federal, state and local regulations. This approval is based on information provided to HCC on the wastestream survey form.

Purchase order number

Release number or other pertinent information

WASTE NON-RCRA or RCRA EXEMPT

Accum Start: _____ Route: MILWAUKEE RAT 1
Loc: MILWAUKEE
Generator Site: PR: 040519 WC#: PP-0944351
TULIP CORP. CC WS#: 73254-7
714 EAST KEEFE AVE TSD Apvl: 72672-8
MILWAUKEE, WI 53212 EPA ID: WID006113013
Waste Codes:

DOT: _____ Product: 1014
NON-DOT/RCRA REGULATED, (NON HAZ FILTER PAPER)



HERITAGE-CRYSTAL CLEAN
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877-938-7948
HCC 20330

RITAGE - CRYSTAL CLEAN - BILL OF LADING

HCC Use Loc: MILWAUKEE Route: MILWAUKEE RAT 1 Page 1 of 1
 Doc #: 125450-2 - PB:040519 WVO #: PP-0944351

Shipper's Name And Mailing Address Shipper EPA ID
 ILIP CORP WID0006113013
 14 EAST KEEFE AVE Shipper State ID
 MILWAUKEE, WI 53212

Generator Phone: (414)963-3120 X
 Transporter 1 Company Name Transp 1 EPA Id Transp 1 State Id Transp 1 Phone
 RITAGE-CRYSTAL CLEAN, LLC INR000006536 (317)486-2770
 Transporter 2 Company Name Transp 2 EPA Id Transp 2 State Id Transp 2 Phone
 Transporter 3 Company Name Transp 3 EPA Id Transp 3 State Id Transp 3 Phone
 Receiving Facility Facility EPA Id Facility State Id Facility Phone
 RITAGE-CRYSTAL CLEAN, LLC INR000006536 (317)486-2770
 170 W 10TH ST STE A
 INDIANAPOLIS, IN 46222
 24Hr Emergency
 (800)827-5221

Shipping Description	Container No.	Type	Total Qty	Unit Wt/Vol
NON-DOT/RCRA REGULATED (NON HAZ FILTER PAPER)				

Special Handling Instructions, Additional Information and Handling Codes (as Applicable)
 J CC:73254-7 TSD:72672-8 (1014) S01 (*3PFB)

GENERATOR'S CERTIFICATION: This is to certify that the above-named materials are properly identified, described, packaged, marked and labeled and are in proper condition for transport according to the applicable regulations of 49 CFR, as required.

Printed/Typed Name Signature Date

Transporter 1 Acknowledgement of Receipt Materials

Printed/Typed Name Signature Date

Transporter 2 Acknowledgement of Receipt Materials

Printed/Typed Name Signature Date

Transporter 3 Acknowledgement of Receipt Materials

Printed/Typed Name Signature Date

Additional Description / Discrepancies

Receiving Facility: Certification of receipt of waste materials covered by this bill of lading.

Printed/Typed Name Signature Date



ORIGINAL - RETURN TO GENERATOR



Heritage-Crystal Clean Approval for Waste Services

Crystal Clean Branch: MILWAUKEE
Effective Date of Approval: 08/04/2010
Generator: TULIP CORP. (73254)
Product: 1054A - 55G USED OIL
HCC Wastestream: 73254-10-26
TSD Approval: 0

* This number must be provided when scheduling.

Any purchase order, release number or shipper number required must be provided at time of scheduling.

Shipping and Regulatory Information

Common Name: 1054 - USED OIL
Generating Process: MAINTENANCE, OIL CHANGES
EPA Waste Codes:
State Waste Codes: 221 MA01 021L
DOT Shipping Description: NON-DOT REGULATED, (USED OIL),

The following information is provided to you for preparation of manifest and other documentation that may be required for shipment/generator records. It is based on data provided to Heritage-Crystal Clean on the wastestream survey form and/or on analytical results obtained from sample testing. If you have any questions about the information or do not agree with any portion of it, please contact a customer services representative at (800) 827-7622. In most cases, HCC will prepare the necessary paperwork and present it to our client for completion.

Generator	Facility	Transporter I
TULIP CORP. 714 EAST KEEFE AVENUE MILWAUKEE, WI 53212 (414) 963-3120 X 226 EPA ID: WID006113013 STATE ID:	HERITAGE-CRYSTAL CLEAN, LLC. 1560 WEST RAYMOND ST INDIANAPOLIS, IN 46221 (800) 424-9300 X 1 EPA ID: ILR000130062 STATE ID:	HERITAGE-CRYSTAL CLEAN, LLC 2175 POINT BLVD, SUITE 375 ELGIN, IL 60123 (847) 836-5670 EPA ID: ILR000130062 STATE ID:

Heritage-Crystal Clean is hereby notifying you that the appropriate permits are available and accepts the waste you have been approved to ship (40CFR 264.12). HCC will provide transportation, treatment, storage, recovery and/or disposal of your waste. All work will be performed in accordance with federal, state and local regulations. This approval is based on information provided to HCC on the wastestream survey form.

Purchase order number

Release number or other pertinent information



Heritage-Crystal Clean Approval for Waste Services

Crystal Clean Branch: MILWAUKEE
Effective Date of Approval: 01/12/2012
Generator: TULIP CORP. (73254)
Product: 1052A - 55G OILFILTER RECYCLE
HCC Wastestream: 73254-10-3
TSD Approval: 10-3

* This number must be provided when scheduling.

Any purchase order, release number or shipper number required must be provided at time of scheduling.

Shipping and Regulatory Information

Common Name: 1052- OIL FILTERS
Generating Process: CHANGES/AUTOMOTIVE
EPA Waste Codes:
State Waste Codes:
DOT Shipping Description: NON-DOT/RCRA REGULATED, (DRAINED USED OIL FILTERS),

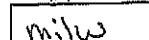
The following information is provided to you for preparation of manifest and other documentation that may be required for shipment/generator records. It is based on data provided to Heritage-Crystal Clean on the wastestream survey form and/or on analytical results obtained from sample testing. If you have any questions about the information or do not agree with any portion of it, please contact a customer services representative at (800) 827-7622. In most cases, HCC will prepare the necessary paperwork and present it to our client for completion.

Generator	Facility	Transporter 1
TULIP CORP. 714 EAST KEEFE AVENUE MILWAUKEE, WI 53212 (414)963-3120 X 226 EPA ID: WID006113013 STATE ID:	HERITAGE-CRYSTAL CLEAN, LLC. 1560 WEST RAYMOND ST INDIANAPOLIS, IN 46221 (800)424-9300 X 1 EPA ID: ILR000130062 STATE ID:	HERITAGE-CRYSTAL CLEAN, LLC 2175 POINT BLVD, SUITE 375 ELGIN, IL 60123 (847)836-5670 EPA ID: ILR000130062 STATE ID:

Heritage-Crystal Clean is hereby notifying you that the appropriate permits are available and accepts the waste you have been approved to ship (40CFR 264.12). HCC will provide transportation, treatment, storage, recovery and/or disposal of your waste. All work will be performed in accordance with federal, state and local regulations. This approval is based on information provided to HCC on the wastestream survey form.

Purchase order number

Release number or other pertinent information



63200 Rev. 01/08 Printed in USA FORM 203-1 THIS IS NOT AN INVOICE

[illegible]



Heritage-Crystal Clean
Approval for Waste Services

Crystal Clean Branch: MILWAUKEE
Effective Date of Approval: 01/03/2003
Generator: TULIP CORP. (73254)
Product: 1014A - 55G NON-HAZ ENERGY RECOVERY
HCC Wastestream#: 73254-7
TSD Approval: 72672-8

* This number must be provided when scheduling.

Any purchase order, release number or shipper number required must be provided at time of scheduling.

Shipping and Regulatory Information

Common Name: 1014-PAPER OIL FILTERS
Generating Process: OIL FILTERING/CHANGE OIL
EPA Waste Code:
State Waste Code:
DOT Shipping Description: NON-DOT/RCRA REGULATED, (NON HAZ FILTER PAPER)

The following information is provided to you for preparation of manifest and other documentation that may be required for shipment/generator records. It is based on data provided to Heritage-Crystal Clean on the wastestream survey form and/or on analytical results obtained from sample testing. If you have any questions about the information or do not agree with any portion of it, please contact a customer services representative at (800) 827-7622. In most cases, HCC will prepare the necessary paperwork and present it to our client for completion.

Generator	Facility	Transporter 1
TULIP CORP. 714 EAST KEEFE AVENUE MILWAUKEE, WI 53212 (414) 963-3129 X 226 EPA ID: W10006113013 STATE ID:	HERITAGE-CRYSTAL CLEAN, LLC. 1560 WEST RAYMOND ST INDIANAPOLIS, IN 46221 (800) 424-9300 X 1 EPA ID: ILR000130062 STATE ID:	HERITAGE-CRYSTAL CLEAN, LLC 2175 POINT BLVD, SUITE 375 ELGIN, IL 60123 (847) 836-5670 EPA ID: ILR000130062 STATE ID:

Heritage-Crystal Clean is hereby notifying you that the appropriate permits are available and accepts the waste you have been approved to ship (40CFR 264.12). HCC will provide transportation, treatment, storage, recovery and/or disposal of your waste. All work will be performed in accordance with federal, state and local regulations. This approval is based on information provided to HCC on the wastestream survey form.

Purchase order number

Release number or other pertinent information

Heritage-Crystal Clean Approval for Waste Services

Clean Branch: MILWAUKEE
Date of Approval: 03/09/2004
For: TULIP CORP. (73254)
1054 - 55 GAL USED OIL
Wastes from: 73254-10-26
Approval: 0

* This number must be provided when scheduling.

State order, release number or shipper number required must be provided at time of scheduling.

ing and Regulatory Information

Name: 1054 - USED OIL
ing Process: MAINTENANCE, OIL CHANGES
Waste Codes:
Waste Codes:

Shipping Description: NON-DOT/RCRA REGULATED, (USED OIL).

Following information is provided to you for preparation of manifest and other documentation that may be required by generator records. It is based on data provided to Heritage-Crystal Clean on the wastestream survey form and/or on results obtained from sample testing. If you have any questions about the information or do not agree with any portion of it, contact a customer services representative at (800) 827-7622. In most cases, HCC will prepare the necessary paperwork and present client for completion.

Generator	Facility	Transporter 1
TULIP CORP. EAST KEEFE AVE MILWAUKEE, WI 53212 3-3120 X 226 WID006113013 ID:	HERITAGE-CRYSTAL CLEAN, LLC 3970 W 10TH ST STE A INDIANAPOLIS, IN 46222 (317) 486-2770 EPA ID: INR000006536 STATE ID:	HERITAGE-CRYSTAL CLEAN, LLC 3970 W 10TH STREET, SUITE A INDIANAPOLIS, IN 46222 (317) 486-2770 EPA ID: INR000006536 STATE ID:

Crystal Clean is hereby notifying you that the appropriate permits are available and accepts the waste you have been approved under RCRA 264.12). HCC will provide transportation, treatment, storage, recovery and/or disposal of your waste. All work will be done in accordance with federal, state and local regulations. This approval is based on information provided to HCC on the waste stream survey form.

Order number

Release number or other pertinent information

HERITAGE - CRYSTAL CLEAN - BILL OF LADING

CC Use Loc: MILWAUKEE Route: MILWAUKEE RAT 1
Doc # 125453-2 PB:040519 WO #: PP-0944354 Page 1 of 1

Shipper's Name And Mailing Address
CORP.
EAST KEEFE AVE
MILWAUKEE, WI 53212
Shipper EPA ID: WID006113013
Shipper State ID:

Transporter Name	Transporter EPA ID	Transporter State ID	Transporter Phone
Transporter 1 Company Name	INR000006536		(317) 486-2770
Transporter 2 Company Name			
Transporter 3 Company Name			

Facility Name	Facility EPA ID	Facility State ID	Facility Phone
HERITAGE-CRYSTAL CLEAN, LLC 3970 W 10TH ST STE A INDIANAPOLIS, IN 46222	INR000006536		(317) 486-2770
	24Hr Emergency (800) 827-5221		

Shipping Description	Container No.	Type	Total Qty	Unit
NON-DOT/RCRA REGULATED, (USED OIL).				

Handling Instructions, Additional Information and Handling Codes (as Applicable)
CC:73254-10-26 TSD:0 (1054) S01

GENERATOR'S CERTIFICATION: This is to certify that the above-named materials are properly classified, packaged, packaged, marked and labeled and are in proper condition for transport according to the applicable regulations at 49 CFR, as required.

Typed Name Signature Date

Transporter 1 Acknowledgement of Receipt Materials

Typed Name Signature Date

Transporter 2 Acknowledgement of Receipt Materials

Typed Name Signature Date

Transporter 3 Acknowledgement of Receipt Materials

Typed Name Signature Date

Additional Description / Discrepancies

Shipping Facility: Certification of receipt of waste materials covered by this bill of lading.

Typed Name Signature Date



ORIGINAL - RETURN TO GENERATOR

WASTE

NON-RCRA or RCRA EXEMPT

USED OIL

Accum Start:	Route:
Loc: MILWAUKEE	MILWAUKEE RAT 1
Generator Site: PR: 040519	WO#: PP-0944354
TULIP CORP.	CC WS#: 73254-10-26
714 EAST KEEFE AVE	TSD Apvl: 0
MILWAUKEE, WI 53212	EPA ID: WID006113013
	Waste Codes:

DOT: Product: 1054

NON-DOT/RCRA REGULATED, (USED OIL),



HERITAGE-CRYSTAL CLEAN

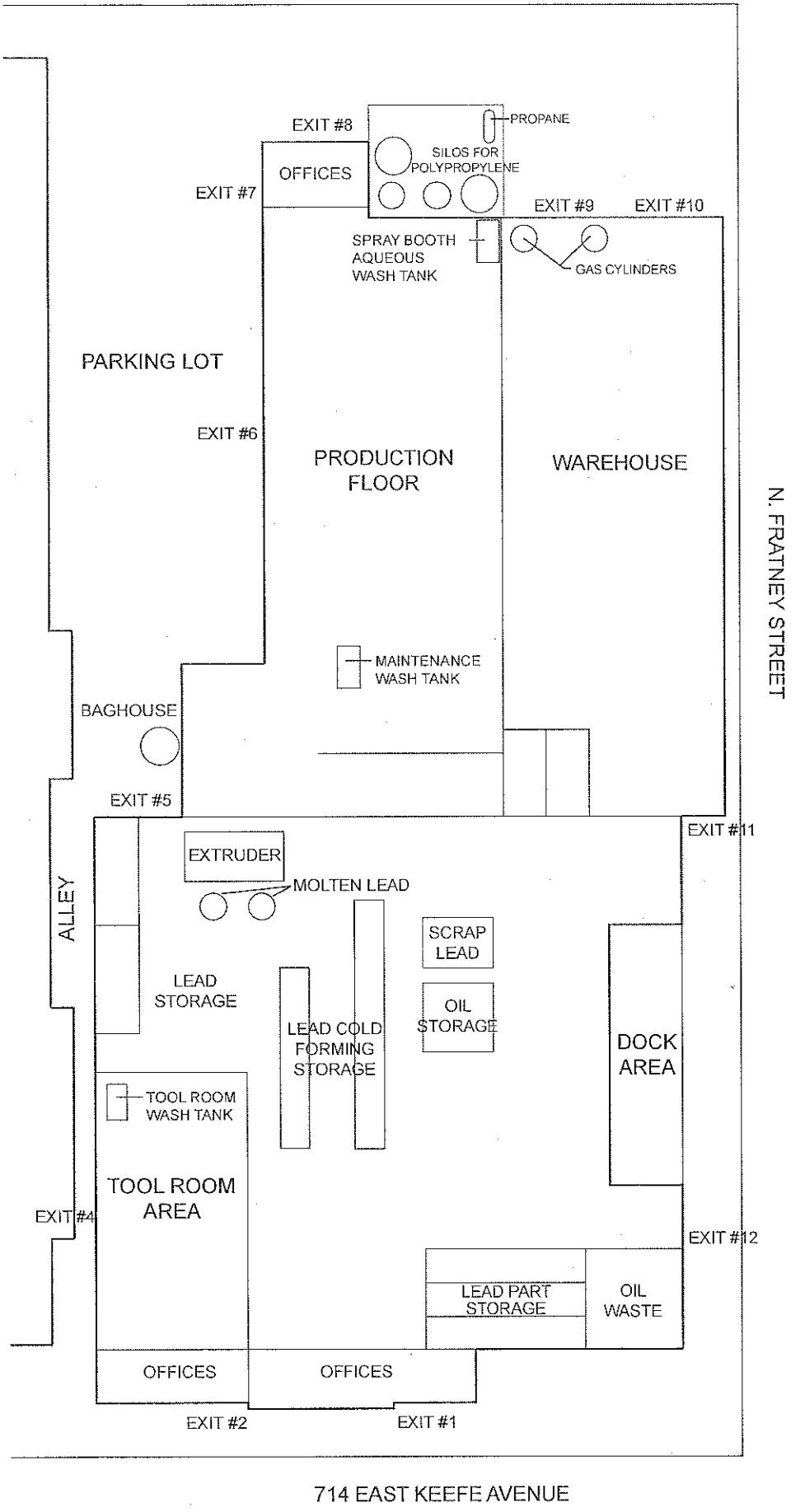
877-938-7948

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HCC 20330

E. NASH STREET

N



TULIP MOLDED PLASTICS CORPORATION

714 E. KEEFE AVE
MILWAUKEE, WI 53209
414-963-3120

REVISION 1 DATE: 2/18/15

REVISION 2 DATE: 6/19/15

Crystal Clean

WORK ORDER

HERITAGE-CRYSTAL CLEAN, LLC
(877) 938-7948

MILWAUKEE

EMP ID #	SVCWK	WORK ORDER #	SVC REQ	AGMT #	PURCHASE ORDER #	PAGE
31875	41	00-006PYOD	172463	944849	PM 14891	1 of 1
CCMS CUST ID #	ROUTE		FEDERAL EPA ID #			
72941	MILWAUKEE ROUTE 4		W10000113013			
COMMENTS			GEN STATUS	STATE EPA ID #		
EMERGENCY: 800-424-9300			500			
PARTS WASHERS ONLY (RHH 7/07) ALL PARTS WASHER SVC PAPERWORK MUST HAVE PAPERWORK SEPARATED FROM ALL OTHER WASTE STREAMS INCLUDING PRE-PRINTS OR MANUAL WORK ORDERS (RHH 7/07)						

CUSTOMER/SHIPPER: TULIP CORP.
714 EAST KEEFE AVENUE
MILWAUKEE, WI 53212

DESTINATION: HERITAGE-CRYSTAL CLEAN, LLC
1005 RICHARDS RD, UNIT O
HARTLAND, WI 53029

Contact Name: JOE MUHAMMAD

(414)963-3120

Phone Number: (262)367-2149

CARRIER: HERITAGE-CRYSTAL CLEAN, LLC

EPA ID #: ILR 000 130 062

Phone Number: (877) 938-7948

BILL OF LADING

16 GAL DRUMS	30 GAL DRUMS	55 GAL DRUMS	PROPER SHIPPING NAME	TOTAL	UNITS
	2		NON-DCR/RCRA REGULATED USED PARTS CLEANER SOLVENT, (119 & CCNT), NON-HAZ, NAPE	44	6

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transport according to the applicable regulations of the Department of Transportation, as required. I also certify that neither hazardous waste, nor PCBs have been mixed with the used oil and/or parts cleaner solvent (if applicable).

Per
Customer/Shipper

Date

10-07-14

Per
HCC/Carrier

Date

10-07-14

SUMMARY OF CHARGES

TODAY'S SERVICE

WS #	PROD. CODE	DESCRIPTION	RTD. GALS.	UNIT	SI	NEXT SVC.	LOCATION COMMENTS	UNIT PRICE	QTY.	TOTAL CHARGE
73254-2	1014A	55G NON-HAZ ENERGY RECOVER	NONE	0	49			\$280.04		
73254-10-17	1060A	55G EMPTY DRUM RECYCLE	NONE	0	49			\$63.43		
	1634 MIN	TANK UNIT 35 GAL.	22	56923A	0	49		\$394.01	1	\$394.01
	1634 MIN	TANK UNIT 35 GAL.	22	154184	0	49	MAINTENANCE	\$394.01	1	\$394.01

\$44.12
\$832.14

TAX
SERVICE SUBTOTAL

PRODUCTS

PRODUCT DESCRIPTION:

UNIT PRICE QTY. CHARGE

PRODUCT SALES TAX \$832.14
SUBTOTAL PRODUCT & TAX

MACHINE INSPECTION		SERVICE/PRODUCTS CHARGE SUMMARY	
Cleanliness	G P	CUSTOMER HEREBY VERIFIES THAT THE ABOVE SERVICES WERE PERFORMED AND THAT SAID SERVICES AND THE CHARGES THEREFORE ARE HEREBY ACCEPTED. CUSTOMER ALSO HEREBY REAFFIRMS THE ACCURACY AND COMPLETENESS OF ALL INFORMATION CONTAINED IN THIS WORK ORDER AND ALL DOCUMENTATION PREVIOUSLY SUBMITTED TO HCC. THIS WORK ORDER IS DEEMED PART OF THE SERVICE AGREEMENT BETWEEN HERITAGE-CRYSTAL CLEAN, LLC AND THE CERTIFICATIONS CONTAINED THEREIN CONCERNING THE MATERIALS TO BE HANDLED AND THE SERVICES TO BE PROVIDED ARE INCORPORATED HEREIN BY REFERENCE AND DEEMED PART HEREOF AND SAID CERTIFICATIONS ARE DEEMED REMADE FOR THE SERVICES COVERED BY THIS WORK ORDER.	TODAY'S SERVICE
Lamp Assembly	G P		PRODUCT & TAX
Drum Condition	G P		TOTAL AMOUNT DUE
Fusible Link Installed	G P		TOTAL REMITTANCE
Lid Unobstructed	G P		CHECK NUMBER
Properly Grounded	G P		
Local Phone if allwed	G P		
Details in Place	G P		

PER: [Signature] DATE: 10-07-14

Loc: MILWAUKEE

4/26/14

Route: 1

WOF:

Form Approved, OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number LTD000-113013	2. Page 1 of 1	3. Emergency Response Phone 800-424-9300, "1"	4. Manifest Tracking Number 001004379 GBF				
5. Generator's Name and Mailing Address Tomp Corp 714 East Keefe Ave Mishawaka, WI 53212 Generator's Phone:						Generator's Site Address (if different than mailing address)			
6. Transporter 1 Company Name HERITAGE-CRYSTAL CLEAN, LLC				U.S. EPA ID Number ILR000430062					
7. Transporter 2 Company Name Koch Industries Inc				U.S. EPA ID Number AL18707128891					
8. Designated Facility Name and Site Address GIANT RESOURCE RECOVERY-SUMTER 755 INDUSTRIAL ROAD SUMTER, SC 29150 Facility's Phone: (803) 773-1400				U.S. EPA ID Number SCD036275626					
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers No.	Type	11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes	
		1. RC, NA 3082, Hazardous Waste, Liquid, N.O.S. (Aqueous Antis washer solution) (NOS) 601171		002	Dm	0075	6	0008	
		2.							
		3.							
		4.							
14. Special Handling Instructions and Additional Information 73254-6 75665 1074									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
Generator's/Offeror's Printed/Typed Name Michael R. Kunkle				Signature Michael R. Kunkle		Month Day Year 06/07/14			
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:						
	Transporter signature (for exports only):								
DESIGNATED FACILITY	17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Keith Godwin Signature Keith Godwin Month Day Year 06/07/14								
	Transporter 2 Printed/Typed Name Tara M. W. W. W. Signature Tara M. W. W. W. Month Day Year 06/07/14								
18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number:									
18b. Alternate Facility (or Generator) Facility's Phone: 18c. Signature of Alternate Facility (or Generator) Month Day Year									
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. L1141 2. 3. 4.									
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a Printed/Typed Name F. H. H. H. H. Signature F. H. H. H. H. Month Day Year 06/07/14									



SUMMARY CERTIFICATE OF ANALYSIS

HERITAGE ENVIRONMENTAL SERVICES, LLC Report To CATHERINE MCCORD HERITAGE- CRYSTAL CLEAN, LLC 2175 POINT BLVD. SUITE 375 - EHS DEPT. ELGIN, IL 60123-9211	Sampled 20-DEC-11 15:00	Lab ID A938212
	Received 27-DEC-11	Client ID : TULIP CORP Matrix : SLUDGE, SOIL, SOLID OR SEDIMENT
	Completed 29-DEC-11	Submitter: 9018 - HERITAGE- CRYSTAL CLEAN Data Package # : N/A

Sample Description
DESCRIPTION: AQUEOUS PARTS CLEANING FLUID CC NUMBER: CC102122011C PARTS WASHER A SALES REP: KELLY

Metals Analysis						
Method	Rep	Parameter	Analyzed	Result	Det. Limit	Units Anal
SW6010B	0	LEAD, TOTAL	29-Dec-11	330	0.20	mg/kg JPK

Sample Comments
ANALYSES PERFORMED CONFORM TO THE WASTE ANALYSIS QUALITY ASSURANCE PLAN. Sample was not received on ice at temperature 22 C. Sample chain of custody number HCC. This is a summary report. Complete analytical information can be found in the full Certificate of Analysis, available upon request.

Gary A. Klingler

Approved by: GARY KLINGLER 29-DEC-11

		Heritage-Crystal Clean, LLC WASTREAM SURVEY FORM		Approval # _____ CC Cont # _____ CCMS # _____ SN # _____																															
		ECG Location: Hickory ECG Representative: Gonzalez		Phone: 362-367-2149 Fax: 362-367-2162																															
SECTION A - CUSTOMER INFORMATION:																																			
Generator: Telp Corp SIC/NAICS CODE: 2912		MAILING ADDRESS (if different):																																	
Address: 714 East Keefe Ave City: Milwaukee State: WI Zip: 53212 Phone: 414-963-3120 US EPA ID # WI1500613013 State ID # WI15		Company Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Container: ▼ DN: ▼ 30 GAL: ▼																																	
SECTION B - WASTREAM INFORMATION:																																			
Common Name: Crystal Clean Aqueous Parts Washer Fluid Generating Process: Parts Cleaning SIC/NAICS CODE: 3088 DOT Description: Non-Regulated		Crystal Clean <i>Orange Progresser</i> Removal of <i>Oil & Grease</i>																																	
SECTION C - CHEMICAL COMPOSITION: List specific chemical names. Do not use the present is maximum.																																			
List all inorganic and organic solvents, flammable liquids, flammable solids, flammable gases, and other hazardous materials. Total composition must equal 100%.																																			
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Components</th> <th>Range</th> <th>Units</th> </tr> </thead> <tbody> <tr> <td><i>Aqueous Parts Washer Solution</i></td> <td><i>85-98</i></td> <td><i>%</i></td> </tr> <tr> <td><i>Gel</i></td> <td><i>5-15</i></td> <td></td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>						Components	Range	Units	<i>Aqueous Parts Washer Solution</i>	<i>85-98</i>	<i>%</i>	<i>Gel</i>	<i>5-15</i>																						
Components	Range	Units																																	
<i>Aqueous Parts Washer Solution</i>	<i>85-98</i>	<i>%</i>																																	
<i>Gel</i>	<i>5-15</i>																																		
SECTION D - IDENTIFY WASTE CODES:																																			
US EPA Waste Code: None		US EPA Source Code: U5																																	
US EPA Form Code: _____		US EPA Source Code: _____																																	
SECTION E - WASTESTREAM DESCRIPTORS:																																			
Color: Brown Appearance: Liquid Order: Mild		% Solids: 0 % Liquid: 100																																	
SECTION F - WASTESTREAM PARAMETERS:																																			
Physical State: Liquid Solid: None Sludge: None Powder: None																																			
Is the wastewater flammable? No Y / N																																			
Is the wastewater combustible? Yes Y / N																																			
Does the wastewater contain debris? No Y / N																																			
PHYSICAL PARAMETERS:																																			
Flash Point: >200 deg F <100 >100 >200 (DEG F)		(If no, will waste dump from a Drum?) No Y / N																																	
Test for BOD: >100 deg F <100 >100 >200 (DEG F)		Total Solids: <2000 2000 - 6000 6000 - 10000 >10000 (PPM)																																	
Total Value: <2000 2000 - 6000 6000 - 10000 >10000 (PPM)		Date: MAR 16 2006 Reviewer: 270695																																	

[illegible]

MATERIAL SAFETY DATA SHEETS (MSDS)

PRINTED 09/14/2001

ITEM # 48676 CRYSTAL CLEAN ORANGE DEGREASER
CRYSTAL CLEAN DIVISION (SEE SECTION 10 FOR ADDRESS/PHONE #)

EFFECTIVE 08/13/2001

SECTION 1 - MATERIAL IDENTIFICATION

- CHEMICAL NAME AND SYNONYMS N/A
- TRADE NAME AND SYNONYMS CRYSTAL CLEAN ORANGE DEGREASER
- CHEMICAL FAMILY AN AQUEOUS SOLUTION OF SURFACTANT,
CAUSTIC, ALCOHOL, TERPENE.
- FORMULA 45-60-15
- HAZARDOUS RATINGS SYSTEM VIA WHIS
HEALTH = 1 FLAMMABILITY = 0 REACTIVITY = 0 PERSONAL PROTECTION = B

SECTION 2 - HAZARDOUS INGREDIENTS

- INGREDIENT % (UNITS)
- SODIUM HYDROXIDE 1910-73-2 2 6 MG/MS
- ISOPROPYL ALCOHOL 67-63-0 5 400 PPM
- TERPENOIDS: NONE SUSPECTED.
- TSCA: ALL COMPONENTS LISTED.

SECTION 3 - PHYSICAL DATA

- BOILING POINT (°F) ... 199 DEGREES F
- VAPOR PRESSURE (MM HG) ... N/A
- VAPOR DENSITY (AIR = 1) ... N/A
- SOLUBILITY IN WATER ... COMPLETE
- APPEARANCE AND ODOR ... CLEAR ORANGE LIQUID
ORANGE SCENT
- SPEC. GRAVITY (WATER = 1) ... 1.02
- VOLATILE BY VOLUME ... 0.4 LB/GALLON
- EVAP. RATE (N-BUTYLACETATE = 1) ... N/A
- FREEZING/ MELTING POINT (DEG/F) ... N/A
- PH OF SOLUTION ... 12-1
- HEAT OF SOLUTION ... N/A

SECTION 4 - FIRE AND EXPLOSION HAZARD

- FLASH POINT (METHOD USED) NONFLAMMABLE
- FLAMMABLE LIMITS LEL N/A UEL N/A
- EXTINGUISHING MEDIA USE APPROPRIATE EXTINGUISHING
MEDIA FOR THE SURROUNDING FIRE. 3-3 3-4
- SPECIAL FIRE FIGHTING PROCEDURES SELF-CONTAINED BREATHING APPARATUS
AND FULL PROTECTIVE CLOTHING SHOULD BE WORN WHEN FIGHTING FIRES INVOLVING
CHEMICALS. 4-4 4-5
- UNUSUAL FIRE AND EXPLOSION HAZARDS NONE

SECTION 5 - SPECIAL PRECAUTIONS

- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE. USE COMMON SENSE AND
SOUND INDUSTRIAL HYGIENE PRACTICES WHEN HANDLING THIS MATERIAL AS WELL AS ANY
OTHER MATERIALS. KEEP CONTAINERS CLOSED WHEN NOT IN USE. WASH HANDS AFTER
HANDLING. 50056
- OTHER PRECAUTIONS NONE.

SECTION 6 - HEALTH HAZARD DATA

- THRESHOLD LIMIT VALUE N/A
- OVEREXPOSURE EFFECTS/COMMENTS N/A
- EXPOSURE LIMITS/ DATA ACGIH: N/A
- OSHA: N/A TLV/THA: N/A
- PEL/THA: N/A TLV/STEL: N/A
- PEL/CEILING: N/A
- OTHER EFFECTS/ DATA:
- EYES: MILD TO SEVERE IRRITATION, POSSIBLE BURNS.
- SKIN: MILD TO SEVERE IRRITATION UPON PROLONGED EXPOSURE.
- INGESTION: NAUSEA, VOMITING, DISCOMFORT.
- INHALATION: N/A

- EMERGENCY & FIRST AID PROCEDURES EYES: Immediately flush eyes with
large amounts of water for at least 15 minutes while holding eyelids apart.
Washing eyes within one minute is essential. Seek immediate medical attention.
SKIN: Wash with plenty of water for 15 minutes. Remove contaminated clothing.
Seek medical attention if irritation persists. INGESTION: Give large quantities of
water. DO NOT induce vomiting. If vomiting occurs spontaneously, keep head
lower than lungs to prevent aspiration of chemical into lungs. Never give
anything by mouth to an unconscious person. Seek immediate medical attention.
INHALATION: Remove victim to fresh air.

N/A = NOT APPLICABLE N/E = NONE ESTABLISHED
(CONTINUED ON NEXT PAGE)

MATERIAL SAFETY DATA SHEETS (MSDS)

PRINTED 09/14/2001

ITEM # 48676 CRYSTAL CLEAN ORANGE DEGREASER
CRYSTAL CLEAN DIVISION (SEE SECTION 10 FOR ADDRESS/PHONE #)

EFFECTIVE 08/13/2001

SECTION 7 - REACTIVITY DATA

- UNSTABLE N/A
- INCOMPATIBILITY (MATERIALS TO AVOID) AVOID CONTACT WITH ACIDIC
MATERIALS AND STRONG OXIDIZERS.
- HAZARDOUS DECOMPOSITION PRODUCTS NONE KNOWN
- HAZARDOUS POLYMERIZATION NO
- CONDITIONS TO AVOID EXCESSIVE HEAT OR OPEN FLAME.

SECTION 8 - SPILL OR LEAK PROCEDURES

WEAR NECESSARY PERSONAL PROTECTIVE EQUIPMENT. DIKE AREA TO PREVENT SPREADING OF
SPILLED MATERIAL. COVER WITH AN INERT ABSORBENT, SHOVEL INTO APPROPRIATE
CONTAINERS AND DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
50056-1 50056-2

SECTION 9 - SPECIAL PROTECTION INFORMATION

- RESPIRATORY PROTECTION (SPECIFY TYPE) NONE NORMALLY REQUIRED.
- VENTILATION ROOM VENTILATION IS NORMALLY
ADEQUATE.
- PROTECTIVE GLOVES SEE 4-4 RUBBER GLOVES RECOMMENDED
- EYE PROTECTION SAFETY GLASSES ARE RECOMMENDED.
- OTHER PROTECTIVE EQUIPMENT USE PROTECTIVE CLOTHING TO PROTECT
AGAINST SKIN CONTACT. EYEWASH AND SAFETY SHOWER SHOULD BE IN THE WORKPLACE.

SECTION 10 - INFORMATION SOURCES

THIS INFORMATION PROVIDED BY HERITAGE CHEMICALS COMPANY
INFORMATION ON THIS FORM IS FURNISHED SOLELY FOR THE PURPOSE OF COMPLIANCE WITH
OSHA'S "HCS" AND SHALL NOT BE USED FOR ANY OTHER PURPOSE.
800-827-7422 219-287-3251
CRYSTAL CLEAN DIVISION
HERITAGE ENVIRONMENTAL SERVICE
3970 N. 10TH STREET, SUITE A
INDIANAPOLIS, INDIANA 46228

SECTION 11 - EMPTY CONTAINER INFORMATION

ANY DISPOSAL PRACTICES MUST BE IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS.
ANY QUESTIONS REGARDING DISPOSAL SHOULD BE DIRECTED TO THE PROPER GOVERNMENT
AGENCY.

SECTION 12 - TRANSPORTATION REQUIREMENTS

- DOT CLASSIFICATION NOT REGULATED
- PROPER SHIPPING NAME NOT REGULATED
- UN# -OR- NA# N/A

N/A = NOT APPLICABLE

N/E = NONE ESTABLISHED

HERITAGE-CRYSTAL CLEAN, LLC

Pre-qualification Analysis Request Form

Completed Form must Accompany Every
Physical Sample Submitted for Waste Approval

HCC BM or BSM Name & Telephone Number Bob Gonzales 262-367-2149	Customer Name Tulip Corp
Branch Location (City and Branch #) Milwaukee CC102	Waste Description (common name) Aqueous Parts Washer Fluid <i>Crystal Clean Orange Degreaser</i>
Date: Thursday, March 16, 2006	HCC Sample # (Branch location # plus date plus alpha) CC102030606A

Pre-qualification Analysis Requested

Sample will not be submitted without a box being checked.

- ☐ Standard Organic Material Pre-qualification Analysis Sample (Z136678)
- X ☐ Standard Inorganic Material Pre-qualification Analysis Sample (Z136677)
- ☐ Full TCLP Analysis (vols, semi-vols, metals only, does not include pests & herbs)
NOTE: Chain of Custody Required (Z138745)
- ☐ Partial TCLP Analysis (Specify which test or tests) _____
NOTE: Chain of Custody Required (Z138745)
- ☐ XX Other Testing (Specify) _____ Test for Lead content

The following forms, signed by the generator, must be faxed to (847) 536-6169 for an approval to be issued:

- Copy of Pre-qualification Analysis Request Form
 - Complete, accurate, and consistent wastestream survey form.
 - UHC form (for characteristic hazardous waste)
 - Non-haz waste determination (for non-hazardous waste); TCLP generally required
 - Completed non-haz mass burn form for non-hazardous waste submitted for mass burn approval; TCLP may be required.
- Note: Completed Benzene NESHA forms for generator's for generator with SIC codes 2911, 3312, or 28--

OIL and VAC Services Analysis Request

- ☐ For OIL or VAC services ONLY USED OIL (Z138536)
- ☐ For OIL or VAC services ONLY OILY WATER (Z138480)
- ☐ For VAC services ONLY NON HAZ WATER (Z138481)
- ☐ Yes ☐ No If the sample fails the OIL or VAC Service parameters,
does the generator want to consider drummed waste approval?



CERTIFICATE OF ANALYSIS

Service Location HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	Received 21-MAR-06	Project	Lab ID A729152
	Completed 06-APR-06	PO Number HCC102	
	Printed 07-APR-06	Sampled 16-MAR-06	

Report To CATHERINE MCCORD CRYSTAL CLEAN 2250 POINT BLVD ELGIN, IL 60123	Bill To CATHERINE MC CORD HERITAGE CRYSTAL CLEAN 2250 POINT BOULEVARD, SUITE 250 ELGIN, IL 60123-7673
--	---

Sample Description	
CLIENT ID: TULIP CORP MATRIX TYPE: SLUDGE, SOIL, SOLID OR SEDIMENT SUBMITTER CODE: 9018 DESCRIPTION: CRYSTAL CLEAN ORANGE DEGREASER CC NUMBER: CC102030606A SALES REPRESENTATIVE: BOB GONZALES	

TOTAL SOLIDS EPA 160.3		NELAC:Y	
Analyst: G. WYN		Analysis Date: 22-MAR-06 15:35	
Parameter	Result	Det. Limit	Units
SOLIDS	2	0.004	Percent

PH (S/S/S) SW846-9045C		NELAC:Y	
Analyst: G. COOPER		Analysis Date: 22-MAR-06	
Parameter	Result	Det. Limit	Units
PH	9.0	0.1	Std. Units

WATER SOLUBILITY SAS		NELAC:N	
Analyst: R. DALAL		Analysis Date: 22-MAR-06	
Parameter	Result	Det. Limit	Units
SOLUBILITY IN WATER	100.0		Percent

PHYSICAL APPEARANCE SAS		NELAC:N	
Analyst: R. DALAL		Analysis Date: 22-MAR-06 09:30	
Parameter	Result	Det. Limit	Units
COLOR	*		
PHYSICAL STATE	**		
NUMBER OF LAYERS	1		
*gray			
**liquid			



HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A729152 TULIP CORP

SPECIFIC GRAVITY (SOLIDS) APHA 213E

Analyst: R. DALAL	Analysis Date: 22-MAR-06	Test: G506.1.0
Parameter	Result	Det. Limit
SPECIFIC GRAVITY	1.0023	
TEMPERATURE	20	Units
		Degrees C

SPECIAL SERVICES SOLID PREP FOR METALS SAS

Analyst: A. STOCKBURGER	Analysis Date: 24-MAR-06 17:15	Test: X116.0.0
Parameter	Result	Det. Limit
INITIAL WEIGHT OR VOLUME	24.8	Units
FINAL VOLUME	50	Grams
		mL

ICP SCAN SW846-6010B

Analyst: J. KRAMER	Analysis Date: 25-MAR-06 15:18	Instrument: ICP	Test: M100.3.0
Prep: SPECIAL SERVICES SOLID PREP FOR METALS SAS X116.0.0			
Parameter	Result	Det. Limit	Units
SILVER	BDL	1.0	mg/kg
ALUMINUM	6.6	1.0	mg/kg
ARSENIC	BDL	1.0	mg/kg
BORON	BDL	1.0	mg/kg
BARIIUM	BDL	1.0	mg/kg
BERYLLIUM	BDL	1.0	mg/kg
CALCIUM	29	1.0	mg/kg
CADMIUM	BDL	1.0	mg/kg
CHROMIUM	BDL	1.0	mg/kg
COPPER	BDL	1.0	mg/kg
IRON	5.3	1.0	mg/kg
POTASSIUM	78	1.0	mg/kg
MAGNESIUM	18	1.0	mg/kg
MANGANESE	BDL	1.0	mg/kg
SODIUM	540	1.0	mg/kg
NICKEL	BDL	1.0	mg/kg
LEAD	67	1.0	mg/kg
ANTIMONY	2.2	1.0	mg/kg
SELENIUM	BDL	1.0	mg/kg
SILICON	9.4	1.0	mg/kg
VANADIUM	BDL	1.0	mg/kg
ZINC	12	1.0	mg/kg

1:5 Dilution.



HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A729152 TULIP CORP

BTU (HEAT OF COMBUSTION) ASTM D-240

Analyst: R. DALAL	Analysis Date: 31-MAR-06	Instrument: CALORIMETER	Test: G507.0.0
Parameter	Result	Det. Limit	Units
HEAT OF COMBUSTION	BDL	200	BTU/Lb

TOX CHAR LEACHING PROCEDURE (TCLP METALS ONLY) SW846-1311

Analyst: E. VAN GROLL	Analysis Date: 03-APR-06	Instrument: PREP	Test: P106.1.0
Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	603.3		Grams
LIQUID FRACTION (GRAMS)	601.2		Grams
EXTRACTED SAMPLE	NA		Grams
SOLIDS	< 0.5		Percent
9.5 MM SIEVE TEST	NA		Passed
INITIAL PH	NA		Std. Units
ADJUSTED PH	NA		Std. Units
BUFFER SOLUTION PH	NA		Std. Units
FINAL PH	6.7		Std. Units
VOLUME BUFFERED SOLUTION	NA		mL
VOLUME EXTRACT FILTERED	NA		mL
VOLUME LIQUID (ADD BACK)	NA		mL
TOTAL VOLUME FILTRATE	NA		mL
AMBIENT TEMPERATURE	NA		Degrees C
INITIAL TIME	NA		Hours
FINAL TIME	NA		Hours
PHASE 0 VOLUME (REP 0)	601		mL
PHASE 0 WEIGHT	NA		Grams
PHASE 0 DENSITY	NA		g/mL
PHASE 1 VOLUME (REP 1)	NA		mL
PHASE 1 WEIGHT	NA		Grams
PHASE 1 DENSITY	NA		g/mL

FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A

Analyst: E. VAN GROLL	Analysis Date: 04-APR-06 12:00	Instrument: PREP	Test: P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP METALS ONLY) SW846-1311 P106.1.0			
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

TCLP LEAD ICP SW846-6010B

Analyst: J. KRAMER	Analysis Date: 05-APR-06 05:35	Instrument: ICP	Test: M616.8.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0			
Parameter	Result	Det. Limit	Units



HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A729152 TULIP CORP

LEAD	64.	0.050	mg/L
1:5 Dilution.			

Sample Comments

ANALYSES PERFORMED CONFORM TO THE WASTE ANALYSIS QUALITY ASSURANCE PLAN.
AMENDED REPORT - CBB - 29-MAR-06 : BTU added

* See Note for Parameter

** See Note for Parameter

< Less Than Lower Detection Limit

BDL Below Detection Limit

NA Not Applicable

Sample was not received on ice at temperature 7.5 C.

Sample chain of custody number CRYSTAL CL

Scott A Bryan

Approved by: SCOTT BRYAN 06-APR-06

Whitney, Brenda

From: Whitney, Brenda
Sent: Tuesday, June 09, 2015 10:29 AM
To: George Koleas
Subject: RE: EPA inspection at Tulip Corp. on March 20, 2015

Hi George,

Yes, sir, you have identified all of the correct questions that I need for you to answer. If you cannot find or cannot create credible documentation to support generator knowledge for these wastes, then you will need to send samples to a lab for analysis. If Crystal Clean already has analyses on file, have them forwarded to you. My main concerns involve the disposal of wastes that may be contaminated with lead (such as oil filters) or with perchloroethylene from the wood resin (such as air filters, partswasher solvent, spill clean-ups, etc.). Your partswasher wastes may not only be contaminated with either lead or perchloroethylene, but also have a low flash point under 140F.

Thank you for your attention to this matter.

Brenda

From: George Koleas [mailto:gkoleas@tulipcorp.com]
Sent: Tuesday, June 09, 2015 7:39 AM
To: Whitney, Brenda
Cc: Daniel Askin
Subject: RE: EPA inspection at Tulip Corp. on March 20, 2015

I want to make sure I have the right questions you want me to answer. Have I identified in **Red** the items you want? I will request the information from Crystal Clean. From the information I have given to you. Do you have any other suggestions about where I might find this information?

1. I understood from the inspection that used oil generated from the injection molding presses and from the cold-form presses is collected for processing in the oil/water separator in the "Old Boiler" room.
 - a. ~~What percentage of oil that is recovered in this process is used back in the facility?~~ **100%**
 - b. ~~Does the oil/water separator generate a sludge that must be removed from the tank?~~ **No**
 - i. ~~If yes, how is this sludge managed?~~
Provide information including waste determination documentation and an example of a shipping manifest or document for this material.
 - c. Does the oil/water separator have filters to collect sediment? **Yes**
 - i. If yes, how are these filters managed? **Disposed of through our waste hauler**
Provide information including waste determination documentation and an example of a shipping manifest or document for this material. **I am looking for ne to send to you.**

5/22/15: It appears from the shipping paper that you sent, that you have determined this waste to be non-hazardous. In order to support this determination, I need documentation. These documents can include sample analytical data for metal content [using the Toxicity Characteristic Leaching Procedure (TCLP)] or documentation of generator knowledge which clearly explains the logic for why the material is not hazardous.

d. ~~I was informed during the inspection that the water fraction is transferred from the separator to a 450-gallon holding unit (tank or tote) and is taken off-site by Crystal Clean as oily water. Either confirm or correct this statement. The water is evaporated. If there is more than our capacity to evaporate, it is taken away by crystal clean.~~

e. Is used oil ever sent off-site without first being processed in the oil/water separator? No

i. If yes, why would it not be processed on-site?

ii. Is it managed as used oil? Yes

Provide documentation of total halogen and lead content, as well as an example of a shipping manifest or document for this material. I will have to find a manifest from the waste hauler

5/22/15: Your answer to (e.) confused me a little bit. If you do not send used oil off-site prior to processing the O/W separator that means you put ALL used oil (including "Contaminated Oil") in the separator. Correct? You also said in your answer to (a.) that you use 100% of what you reclaim from the O/W separator. So, what is left that you would have a manifest in your response to (e.)(ii)? If your answer is, "No used oil goes off-site," then you may skip the next question.

5/22/15: For any oil (not oily water) that may be sent off-site, please provide the following information:

- (1) Is the material being recycled or is it disposed of? In other words, is it managed as used oil or as a waste?
- (2) The name of the waste hauler.
- (3) If it is being recycled, provide a document for that material which shows lead content and total halogen content.
- (4) If it is being disposed of, provide a waste determination with sample analytical results or a description of generator knowledge.

f. ~~Explain how the waste stream "Water contaminated with oil" is managed. For example, is it processed through the oil/water separator or is it sent off-site without being processed? Processed through the oil water separator~~

i. ~~Provide information including waste determination documentation and an example of a shipping manifest or document for this material, if available. I will have to find a manifest from the waste hauler~~

g. ~~Mr. Muhammad explained during the inspection that process waters are not directly discharged to the sewer. At the time of the inspection, I observed a hose positioned over the drain opening closest to the stairs in the Old Boiler room.~~

i. ~~Please explain the purpose of this hose. It is how we deliver water to the evaporator~~

ii. ~~Provide the most recent sewer permit from the city of Milwaukee. We do not have a sewer permit and to our understanding none is required.~~

2. ~~Lead dross and other Lead contaminated wastes are sent for recycling. Please see Dan Askins answers~~

a. ~~Provide the contracts that exist with each recycler that accepts Tulip's lead waste.~~

b. ~~If not included in the contracts, provide an explanation of how lead contaminated wastes such as filters, dirt or oil dry are eligible for recycling. What process is used to reclaim the lead from these materials?~~

c. ~~Provide documentation that shows the wastes were not speculatively accumulated at Tulip for 2014 and 2015.~~

3. During the inspection, we identified one partwasher near the spray booth on the far north end of the facility. During a review of manifests, however, it appeared that there were at least two different partwashers being used at the facility. One waste stream was sent off-site as lead-contaminated hazardous waste carrying the D008 hazardous waste number. The second waste stream was managed as non-hazardous.

a. How many partwashers are utilized at this facility? 3

- b. Where are these partwashers located (provide general location such as "Cold-Form.") **Maintenance and Paint Line**
- c. Provide the waste determination documentation for each parts washer. **I will have to find a manifest from the waste hauler**

5/22/15: Please provide examples of your most recent shipping documents for the wastes generated by each partwasher. I would expect to see three different shipping documents. Be sure to add a note on the document stating where the partwashers are located and what solvent is used.

5/22/15: Please also provide documentation that clearly states why the wastes from each partwasher is hazardous or is non-hazardous (waste determinations). As I mentioned before, these documents can include sample analysis results or a description of generator knowledge.

- 4. During the inspection, I observed a spill of the coating for lead bushings underneath the spray booth. An employee had poured solvent on the spill in order to loosen it to clean it up.
 - a. Provide an MSDS for the solvent used to clean the spill. **Orange Tough 40 attached.**
 - b. Provide waste determination documentation for the clean-up residuals. **I have to try to find information on this**
 - c. If applicable, provide the shipping manifest that accompanied the waste. **Not applicable**

5/22/15: Please explain how the clean-up residuals were managed (e.g., general trash, combined with another waste, still in storage, etc.)

5/22/15: I am still requesting information responsive to 4.b. As noted above, a waste determination includes sample analytical results or a write-up of generator knowledge explaining why the material is either hazardous or not.

- 5. During the records review portion of the inspection, I noticed two manifests initiated on 7/10/14 and 7/11/14 showing shipments of D001 hazardous waste described as isoparaffinic hydrocarbons and contaminated used oil. **See attached**
 - a. Identify the source of this waste.
 - b. Provide waste determination documentation for this waste.
 - c. The LDR notices attached to these manifests were marked "yes" for Underlying hazardous constituents, though none were identified. Identify the UHCs applicable to this waste. **If not previously answered, please explain in more detail what you are asking for.**

5/22/15: Underlying hazardous constituents are contaminants in the waste stream that are not in sufficient quantity to be included in the characterization of the waste, but are still present and need to be treated to certain levels before the waste can be land-filled. For example, if the waste stream contains lead, but not in sufficient quantities to be included as a characteristic on the manifest under D008, it needs to be included, not on the manifest, but on the land disposal restriction form as an element that must be treated.

From: Whitney, Brenda [<mailto:whitney.brenda@epa.gov>]
Sent: Friday, May 22, 2015 3:55 PM
To: George Koleas
Subject: RE: EPA inspection at Tulip Corp. on March 20, 2015

Hi George,

I realize that you will be out of the office for the next two weeks. I was out on inspections this week and didn't get a chance to write up my questions until today, unfortunately. **If you can, please respond to my additional questions by June 19, 2015.**

Scroll down to the bottom of this email thread to get back to the original email that I sent. I am including my new questions in that email, so that you can also see what your original answers were as well. I have prefaced each new question with today's date, 5/22/15, so that you can see it better.

Please let me know if you have any concerns or need me to clarify my questions.

Thanks,
Brenda Whitney

From: George Koleas [<mailto:gkoleas@tulipcorp.com>]
Sent: Thursday, May 14, 2015 2:53 PM
To: Whitney, Brenda
Subject: RE: EPA inspection at Tulip Corp. on March 20, 2015

Thank you. FYI I am on vacation the last week of May and the first week in June. I am back the 2nd week of June

From: Whitney, Brenda [<mailto:whitney.brenda@epa.gov>]
Sent: Thursday, May 14, 2015 2:50 PM
To: George Koleas
Subject: RE: EPA inspection at Tulip Corp. on March 20, 2015

Okay, sure. I had a couple of questions from your initial response as well, so I will put everything together and send you another email with more specific, detailed questions.

Give me a few days for it.

Thanks!
Brenda

From: George Koleas [<mailto:gkoleas@tulipcorp.com>]
Sent: Thursday, May 14, 2015 2:41 PM
To: Whitney, Brenda
Subject: RE: EPA inspection at Tulip Corp. on March 20, 2015

Attached are more documents,

In questions 1 C, 1 F and 3 C, you ask for Waste Determination Documentation. I cannot find this. Would Crystal Clean have this?

In question 1 E ii you ask for total halogen and lead content. In the document I sent previously from Crystal Clean there was a breakdown and I did not see halogen or lead content.

I can ask Crystal Clean, but I am not sure I know what to ask for. Can you help me by writing out what you need and I will try to get it for you.

From: George Koleas
Sent: Monday, May 11, 2015 7:16 AM
To: 'Whitney, Brenda'
Subject: RE: EPA inspection at Tulip Corp. on March 20, 2015

Thank you.

From: Whitney, Brenda [<mailto:whitney.brenda@epa.gov>]
Sent: Monday, May 11, 2015 7:18 AM
To: George Koleas
Subject: RE: EPA inspection at Tulip Corp. on March 20, 2015

Hello George,

Yes, of course, you can submit any additional information by May 15th. If you need more time, just let me know, and I will see what I can do for you.

Thanks,
Brenda Whitney

From: George Koleas [<mailto:gkoleas@tulipcorp.com>]
Sent: Friday, May 08, 2015 4:18 PM
To: Whitney, Brenda
Cc: dan@esca-tech.com
Subject: RE: EPA inspection at Tulip Corp. on March 20, 2015

Please add the attached to the documents I have sent.

From: George Koleas
Sent: Friday, May 08, 2015 3:20 PM
To: 'Whitney, Brenda'
Cc: dan@esca-tech.com
Subject: RE: EPA inspection at Tulip Corp. on March 20, 2015

Attached is the response from Dan Askin to your questions. Attached is also documents that I believe answer some of the questions that you asked me during your inspection. Please also see the answers below.

I am still searching for information as indicated in the answers to the questions below. May I still have until the end of next week, May 15, to submit these documents?

From: Whitney, Brenda [<mailto:whitney.brenda@epa.gov>]
Sent: Thursday, April 23, 2015 3:19 PM
To: dan@esca-tech.com
Cc: George Koleas
Subject: Re: EPA inspection at Tulip Corp. on March 20, 2015

Dear Mr. Askin,

I am a RCRA inspector with the US EPA, and I recently conducted an inspection at Tulip Corporation in Milwaukee. I was escorted by George Koleas (copied on this e-mail), Joey Muhammad, and Terry Evraets. Mr. Koleas referred me to you for questions that we could not fully answer at the time of the inspection. I had spoken with you five years ago regarding an inspection I conducted at this facility at that time, you may recall. My purpose for contacting you is simply for information gathering purposes. If at all possible, please respond to this email by May 8, 2015.

1. I understood from the inspection that used oil generated from the injection molding presses and from the cold-form presses is collected for processing in the oil/water separator in the "Old Boiler" room.

- a. What percentage of oil that is recovered in this process is used back in the facility? **100%**
- b. Does the oil/water separator generate a sludge that must be removed from the tank? **No**
 - i. If yes, how is this sludge managed?
Provide information including waste determination documentation and an example of a shipping manifest or document for this material.
- c. Does the oil/water separator have filters to collect sediment? **Yes**
 - i. If yes, how are these filters managed? **Disposed of through our waste hauler**
Provide information including waste determination documentation and an example of a shipping manifest or document for this material. **I am looking for ne to send to you.**

5/22/15: It appears from the shipping paper that you sent, that you have determined this waste to be non-hazardous. In order to support this determination, I need documentation. These documents can include sample analytical data for metal content [using the Toxicity Characteristic Leaching Procedure (TCLP)] or documentation of generator knowledge which clearly explains the logic for why the material is not hazardous.

- d. I was informed during the inspection that the water fraction is transferred from the separator to a 450-gallon holding unit (tank or tote) and is taken off-site by Crystal Clean as oily water. Either confirm or correct this statement. **The water is evaporated. If there is more than our capacity to evaporate, it is taken away by crystal clean.**
- e. Is used oil ever sent off-site without first being processed in the oil/water separator? **No**
 - i. If yes, why would it not be processed on-site?
 - ii. Is it managed as used oil? **Yes**
Provide documentation of total halogen and lead content, as well as an example of a shipping manifest or document for this material. **I will have to find a manifest from the waste hauler**

5/22/15: Your answer to (e.) confused me a little bit. If you do not send used oil off-site prior to processing the O/W separator that means you put ALL used oil (including "Contaminated Oil") in the separator. Correct? You also said in your answer to (a.) that you use 100% of what you reclaim from the O/W separator. So, what is left that you would have a manifest in your response to (e.)(ii)? If your answer is, "No used oil goes off-site," then you may skip the next question.

5/22/15: For any oil (not oily water) that may be sent off-site, please provide the following information:

- (1) Is the material being recycled or is it disposed of? In other words, is it managed as used oil or as a waste?
- (2) The name of the waste hauler.
- (3) If it is being recycled, provide a document for that material which shows lead content and total halogen content.
- (4) If it is being disposed of, provide a waste determination with sample analytical results or a description of generator knowledge.
- f. Explain how the waste stream "Water contaminated with oil" is managed. For example, is it processed through the oil/water separator or is it sent off-site without being processed? **Processed through the oil water separator**
 - i. Provide information including waste determination documentation and an example of a shipping manifest or document for this material, if available. **I will have to find a manifest from the waste hauler**
- g. Mr. Muhammad explained during the inspection that process waters are not directly discharged to the sewer. At the time of the inspection, I observed a hose positioned over the drain opening closest to the stairs in the Old Boiler room.